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This house, although not built of expensive materials, appears to have the spirit of a real home.

BUREAU OF EDUCATION

HOUSEKEEPING

A TEXTBOOK FOR GIRLS IN
THE PUBLIC INTERMEDIATE SCHOOLS
OF THE PHILIPPINES

By ALICE M. FULLER

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FOREWORD

In 1909, five special vocational intermediate courses of study were tentatively promulgated; and by the following year they had taken pretty definite form. One of these was the course in Housekeeping and Household Arts; and in order that there might be uniformity of effort and that the teachers concerned with this course, particularly those just arrived from the United States or those who had not been here long enough to acquaint themselves with affairs Philippine, might not have to waste a lot of valuable time in uncertain experimentation, the Bureau of Education in 1911 published Bulletin No. 35 entitled "Housekeeping and Household Arts—A Manual for Work with the Girls in the Elementary Schools in the Philippine Islands."

The success attending the use of this manual and the advisability of emphasizing this special course of study, the results of which are most gratifying, have warranted the expansion of the manual into the present textbook form for the use of the pupils themselves.

The general plan for treating each phase of the subject is by means of reading lessons first, followed by exercises involving actual practice of the ideas and experiments suggested. Anent the reading lessons, some may think that certain of the discussions are couched in language beyond the pupils' depth. The skillful teacher will be able to obviate any difficulty along this line by bearing in mind that these reading lessons are primarily for the purpose of conveying practical and useful information and not of teaching reading. Certain delicate subjects, in order to be discussed in print at all, must of necessity be treated in language somewhat above the average intermediate pupil; but if the teacher establishes and maintains intelligent, sympathetic, and confidential relations between herself and her pupils, she will have no difficulty in thoroughly acquainting their minds with the import of every paragraph of this book.

The casual reader may wonder why certain matters have been discussed at all, assuming that they are such as every schoolgirl already knows. The experience of teachers generally has been such as to warrant textbook and classroom discussion of such matters just as they hereinafter stand. One of the chief aims of this book is to reach the great mass of the people through the medium of the schoolgirls.

Other readers not immediately concerned with school work may question the advisability of including in a textbook for intermediate schoolgirls certain of the following lessons dealing with "advanced" topics on the subject of feminine responsibility. In this connection, let it be remembered that Filipino girls, on the average, attain to physical maturity at an earlier age than do the girls of the United States and Europe, and that, for several good reasons, the average age of the pupils of any grade in the Philippine schools is considerably higher than in the corresponding grade in the schools of the United States. Moreover, for reasons too numerous to be mentioned here, a large percentage of the girls are obliged to leave school before they complete even the intermediate course; and for this reason it is desired to bring these matters to their attention in the form of organized and systematic instruction before they pass out from under school influence. Then again, it is surprising to contemplate the amount of unorganized knowledge the average Filipino girl of intermediate school age possesses concerning "the hidden things of life."

To Mrs. Alice M. Fuller, teacher of housekeeping, is due the credit of choosing, assembling, and writing up the material for this book. Most of the lessons, exercises, and recipes are the result of notes on her own work and experience in the classroom.

To Mr. John D. DeHuff, Second Assistant Director of Education, is due the credit of editing the language features of the text; of indexing; of compiling the glossary; of arranging the material generally from the mechanical standpoint for the printer; and of furnishing many helpful suggestions from the viewpoint of the school superintendent. Most of the illustrations were suggested by him.

Credit is also due to Miss Anna M. Donaldson, of the Philippine Normal School, Mr. Charles E. Asbury, formerly of the Manila city schools, Mrs. Jessie B. Sweet, of the Batangas Provincial School, and Miss Mary Helen Fee, of the Philippine Normal School, for reading and criticism; to Miss Melvina M. McKeever, of the Tondo Intermediate School, for various recipes and for assistance in trying out other recipes; to Dr. Eleanor Pond and Dr. Rebecca Parish, of the Mary J. Johnston Memorial Hospital, for notes and criticisms on the lessons and discussions relating to hygiene and sanitation; and to many others who have worked during the past ten years in different parts of the Islands.

Acknowledgement is also made of the Bureau's indebtedness to the many Filipino friends of education, especially those in Zambales, Cagayan, and Manila, who by their sympathy and valuable suggestions have helped to make this book possible.

FRANK L. CRONE,
Director of Education.

MANILA, *December 1, 1913.*

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PART I

HOUSEKEEPING

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PART I

HOUSEKEEPING

INTRODUCTORY SUGGESTIONS TO TEACHERS

It is believed that the most satisfactory method of instruction in housekeeping would be to actually do the work of a home in a house such as that from which the pupils come. The girls should be shown how to get the best out of what they have and how to do their work in the best and quickest way. The object of the housekeeping course is to improve conditions in the home; but if the rooms used for housekeeping are too well furnished and too well supplied with aids and utensils, the pupils are inclined to believe that like results can be gained at home only when the work is done under similarly favorable circumstances. We expect too much of inexperienced girlhood when we build a model home and ask the pupils to raise their homes to that standard. They are unable from any standpoint to do this; and although they may make a good showing in the classroom, the work which does not touch the real home life is a miserable failure.

In all these lessons, a teacher should build as much as possible upon what the pupils already know. The girls should think for themselves. They should do the exercises first and talk about them afterwards. They should be given a name for an object or a process only when they know what they want a name for, and an explanation only when it really means something to them. They should not be crammed with a multitude of facts. In judging the work, the teacher should consider neatness, rapidity, and the beauty of the finished product, but, most of all, the educational value of the work to the girl.

Various kitchen utensils.

The ideal way of teaching the girls would be to work in the individual homes; but as this does not seem practicable in connection with our schools, the teacher of housekeeping will find that she comes into much closer contact with vital matters if she meets her pupils in a house modeled and equipped as much as possible along the same lines as those in which the pupils actually live.

The ideal house in which to do the work prescribed in this book would be one built on the plan of an ordinary dwelling house. Three rooms are necessary, but four would be better—one for the kitchen or laboratory, where all the kitchen work except individual cooking is done; a small cookroom; a sala; and a bedroom and dressing room combined. Where individual cooking lessons are given, the cookroom is almost a necessity. Numerous charcoal fires burning in a room make it so hot, smoky, and uncomfortable that to do satisfactory work there is out of the question.

The school kitchen should be an ordinary Filipino kitchen like the others in the neighborhood; but it should be cleaned

Various kitchen utensils.

and whitewashed and must have plenty of lime sprinkled under it. The attention of the girls should be called to the necessity of constantly maintaining such conditions. They should be made to understand the advantages thus gained; and if those conditions do not already exist in their own homes, they should be encouraged to establish them there. The blue-flame oil stove and the fireless cooker may be introduced and their use encouraged, if the teacher so desires.

The principal kitchen furniture should be zinc-covered work tables; a tightly covered garbage can; the necessary cooking utensils; and the Filipino stoves with chimney, hood, and clay ovens. As to the cooking utensils, the girls should be able to tell what is necessary; that is, what the family uses at home. Enough of these utensils should be on hand for the class to work with; and after the girls have been taught how to use in the best way the things to which they are accustomed, other things may be added as their need is felt.

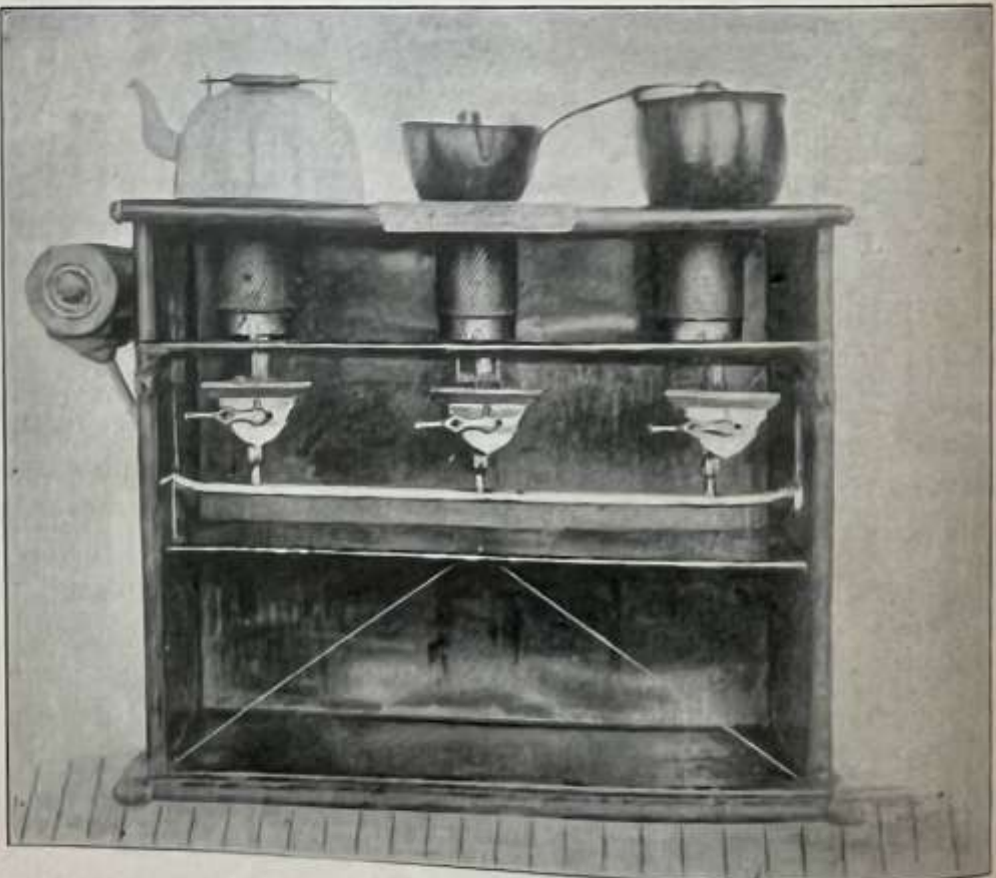
The kitchen should have sufficient conveniences for twelve girls to work in it at one time. Six separate tables may be used, planned for two girls at each table; or one large table may be built in a semicircle around the teacher's desk; or the medium-sized tables suitable for the work of four girls at a time may be set in the form of an oblong with the teacher's table at one end. In arranging the girls for work, care should be taken to place them so that the teacher may see at a glance what each is doing, and so that no girl has her back toward the teacher. The individual utensils should be placed in the table drawers, and the girls should be required to keep the drawers clean and tidy and their contents in order.

The class enjoys more comfort, and better work is done, when the kitchen is kept as cool as possible. It is suggested that one native stove for demonstrations be kept in the kitchen, but that the class stoves be far enough away so that neither their smoke nor their heat finds its way into the workrooms. It is further suggested that each equipped school kitchen be provided with an American range and

Native clay stoves and ovens (bibincahan).

certain helpful imported kitchen utensils. These may be used occasionally to acquaint the girls with more advanced methods of doing kitchen work.

The sala should be large enough to be used as a sewing room and an assembly hall by all the girls of the school, and to be used for certain lessons and social gatherings. A suitable house is not hard to find in most provincial towns.



Blue-flame petroleum oil stove.

By removing partitions, two good-sized rooms may be obtained for the sala and kitchen. These rooms should be large, airy, and light. The cookroom may be an open shed; or the room that served for a kitchen when the house was a dwelling may be used for this purpose. Nothing is needed here except the stoves and a table.

If convenient, there may be a separate bedroom. Every possible effort should be put forth to arouse in each girl a desire for privacy and for a bedroom of her own. Such desires may live in her heart and help her granddaughter to make many changes in her home life. However, since families of this country will probably not use individual bedrooms for some time to come, and since most of the people will continue to sleep on the floor, our immediate duty is to help the girls to find the most healthful conditions under which this practice may be continued.

The school bedroom should have the usual necessary but simple bedroom furnishings, and the girls should be taught their care and use. It will be used as a dressing room, and here the girls will change their dresses and put on their uniforms. There should be provided a mirror, water, towels, and soap.

The work should be directed toward increasing the necessities of the people; but each new step must be based upon what they already have, and the increase in their necessities should be gauged by the evidences of a real, and not an artificial, growth.

The domestic instinct is innate, but it is not strongly developed in most Filipino girls. However, they have much useful knowledge of the kind that comes from environment and is handed down from mother to daughter. Conditions in the tropics are very different from those obtaining in temperate countries; and foreigners naturally have much to learn from the Filipinos. When American teachers find that Filipino methods differ greatly from their own, they should seek the natural and legitimate cause for the difference; and when the cause is discovered, the intelligent teacher can combine her own knowledge with that of her pupils in such a way as to produce a better result than either would give alone. Both teachers and pupils should be willing, gracious, and as glad to take as to give. All should work without prejudice, seeking the best ways of doing what there is to be done. Anything and everything that keeps the home in touch with the school work is of great value.

It is unfortunate that many Filipino girls leave school before completing Grade V. In many instances there is no reason for this except that the girl is tired of study; and as she is able to read, write, and count, her parents feel that she has all the education necessary and so do not urge her to continue her studies. The Housekeeping Course, if made attractive, will be a great incentive to girls to continue in school.

The most important thing to teach about the care of the home is cleanliness. The girls must know the value of wood ashes, of sand, and of the *is-is* leaves, that are so much like sandpaper. They must also be taught the absolute necessity of hot water, soap, fresh air, and sunshine. They must be made to realize that a dirty kitchen brings sickness and death. They should feel that the house set aside for this teaching belongs to them while they are taking this work, and each should do her part toward keeping it clean and making it attractive. They should take turns at being housekeepers, two working together for a week at a time. While the other members of the class are cooking or sewing, these two girls should do the general housework. They should dust, build the fires, attend to the plants, see that the wash basins are clean and the water pitchers full, boil the drinking water, do whatever general housework there is to be done, clean the knives, put sand or ashes into the vault, wash the dish towels, bring the stores to the teacher when directed, and put clean dishes in their places. Each girl must do every day the best of which she is capable, and the teacher must hold her to this standard and not permit her to become careless or to slight her work.

In all work in housekeeping, small classes are much more satisfactory than large ones. It is impossible for a teacher to do the best work with beginners in cooking and garment making with more than eight or ten pupils at one time.

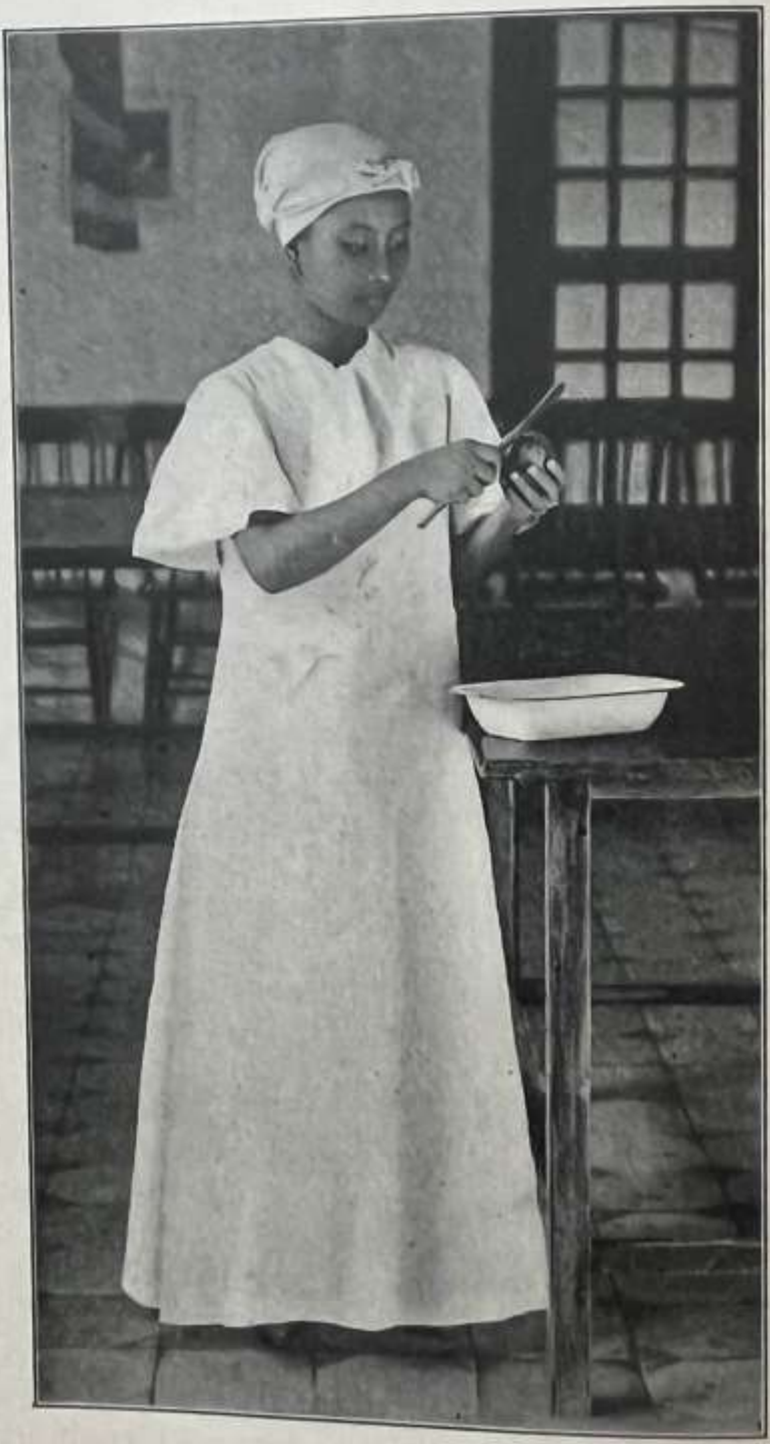
Even when the girls have a fair knowledge of English and a fairly clear idea of what the finished product should be like, small classes are essential.

If there are many girls, arrangements should be made for rotation of classes on successive days. In conducting the work in plain sewing, larger classes are possible, for often there are girls in the class who are able to act as assistants to the teacher.

In this connection is suggested the following plan, which has been used in some places where the classes were so large as to be unwieldy. The teacher divided the class into two or more sections, each to be presided over by one of the best trained girls in the class. The teacher took some time before the class to explain to the leaders just what she hoped to accomplish during the class period. The leaders worked to secure the results which the teacher desired, while she supervised the sections. This plan may not prove very satisfactory at first; but after patient and repeated trials, it works out very well indeed. It obviates the necessity for rotation of classes, and gives each girl all the time for class work that is coming to her.

Girls at work should dress neatly and appropriately. They should wear white caps and aprons, and their skirts should be short enough to clear the ground, and their caps large enough to cover the hair so that there may be no chance to scratch the head or arrange the hair while preparing the food. Various styles of caps have been employed, but the favorite one is a square of organdie eighty-two (82) centimeters on a side, folded diagonally and tied about the head. The corners are crossed at the back and tied in front. The girls may show individuality and considerable artistic taste in the arrangement of these caps.

The apron should really be a round-length wash dress. Patterns of aprons may be found which cover the person from neck to heels; or, if desired, an apron made like a very full chemise with sleeves may be used. When such aprons are used, the dress skirt and camisa should be taken off. Very necessary parts of the uniforms are the holders and towels. The holders should be suspended from the belt by a double tape, the tape being folded in the middle and fastened to the belt, so that a holder may be taken in each hand when the pupil is handling the oven or heavy



Girl dressed for work in kitchen.

hot dishes. The hand towel may be attached to the belt by a safety pin.

In order to keep the family interested in the school work, the food prepared should sometimes be taken home. The girls may take home any food that will remain in good condition until the next meal time. When they make salads, puddings, and foods that are to be served cold, it is well to have them bring little bowls to school, so that the food may be sent home in the dish in which it was prepared.

It is quite as essential that the cooked dishes be often served in school. The occasions when this is done may be utilized for teaching the serving of family meals; for teaching table manners; and for emphasizing the necessity of individual plates, knives, forks, and other utensils, and also the advantages of using tablecloth and napkins.

It is preferable and has proved satisfactory for the girls to furnish, as far as possible, all the material used in sewing and cooking, and to own the finished product. This gives them experience in practical buying and makes them more careful not to waste material; most important of all, it teaches them to be self-reliant.

When a class of girls who are slow and awkward has to earn the money to carry on its work, the teacher is sorely tempted to take more than her own share of the responsibility and to do as much of the manual labor as will assure the success of the finished product. If she has to make a financial success of her cooking and sewing, she must be careful not to do it at the expense of her teaching, because otherwise the work of the pupils is likely to degenerate into fetching and carrying for the teacher, putting the house to rights, and executing the merely mechanical parts of the needlework, the teacher doing all the delicate work that demands thought and judgment.

The object of these lessons is not to prepare a certain amount of food to eat or to sell, or to place upon the market salable embroidery or garments. It is to develop in the girls manual and mental power and to make of them efficient women who, when left to themselves, will do the work of the home as it should be done.

Of course, some money has to be earned to assist in carrying on this work; but while raising money, we must not lose sight of the real end aimed at. A goodly number of pesos in the strong box at the end of the year does not necessarily mean success. If the teacher has turned her classroom into a bake-shop, or a lunch room, or a manufactory of some sort, she must figure for each girl a daily decent living wage and allow a surplus for running expenses and her own salary before she has a right to consider her business successful. But if on the other hand her business is teaching, and if she knows that she has helped the girls to attain to higher ideals of homelife, she may then feel that her work has been worth while, no matter whether there is any cash left in the box or not.

The work is more exciting, perhaps, where money is turned over; but work of this sort moves in a circle, and a new term brings the class back where it began. Girls must learn to do by doing, and it is absolutely necessary for them to spoil more or less material before they may have the ability to do the work well and confidence enough to take the responsibility of leading. In order to begin work of this kind, it will be necessary to secure a fund which may serve as capital; but the girls should be made to feel that the responsibility of repaying that fund rests upon them. When the girls are able to do something well, they should be permitted to commercialize their work, but even then only to a limited extent. It is also necessary to earn running expenses, but not to try to see how much money can be made. Every minute of the few short years which girls spend in school is precious. When they can do something perfectly, they should not use school time for doing it, except when it is necessary to raise money for material for classroom work. It is not difficult to earn the running expenses of a class in housekeeping; but it is difficult to know when to stop earning and how to use to the best advantage that which has been earned.

The course provides for nine 80-minute periods of industrial work each week, the time to be divided as follows:

Needlework, 4 double periods a week; cooking and housekeeping, 3 double periods a week; hygiene and home sanitation, 1 double period a week; ethics, 1 double period a week.

With the exception of the lessons in housekeeping, the course is plainly divided into fifth and sixth grade work. There is no good reason why girls in Grade V should not learn to do all the housework connected with the school kitchen. It is suggested that the girls of this grade spend most of the time allotted to housekeeping in manual work rather than in reading from the textbook concerning the tasks. By the time they have reached Grade VI, they will have had sufficient experience in actual housework to make the reading of the text well worth while.

The work planned for the course will be found to differ radically from similar courses given in the public schools of the United States. The Filipino girls have had a different home training and different experiences; they have had more intimate responsibility in the family; and the kind of knowledge which they have acquired there is vastly different from that which American school girls of the same age possess. Moreover Filipino girls have certain hereditary qualities unlike those of American girls; and these qualities together with Filipino home environment and the prevailing customs of the country make it desirable to teach in the schools certain lessons which would not be considered appropriate for grammar-school work in the United States. Anything that goes toward the making of better homes and nobler women has a place in a textbook of home economics; and the author therefore feels that no apologies are necessary for any of the subject matter treated in this text.

The book is intended for the use of Filipino girls of the fifth and sixth grades of the intermediate schools. It deals with five subjects; housekeeping, cooking, sewing, hygiene and home sanitation, and ethics. It is really five distinct books in one. The author's plan for using the book is to begin with Lesson I of each part in the first period assigned to that subject and to let the work assigned in each subject follow in its own turn in uninterrupted succession.

Housekeeping and home sanitation really work themselves into one insistent effort to keep everything about the home clean; and hygiene works along much the same line, its object being to prepare conditions which create and maintain good health in the family.

Hygiene has its own place in the general program. The periods set aside for that study from the time assigned to housekeeping should be devoted to more intimate talks than can be made with a mixed class of boys and girls. The author believes, however, that Filipino boys need some of the lessons laid down in this book quite as much as the girls do. An effort should be made to impress upon the pupils the fact that the truths of hygiene are to be applied to everyday life and to both sexes.

Everything that is taught in this course aims to be practical and appropriate for Filipino homes. We want every girl graduating from the public schools to have a working knowledge of the fact that everyday right living makes people physically strong and mentally able to fill responsible places in life; that every strong, capable woman becomes an inestimable power for good in her community.

Intermediate school equipment in housekeeping course

	For a class of—		
	8 girls.	12 girls.	16 girls.
Zinc-covered work tables	2	3	4
Cupboard with lock	1	1	1
Teacher's desk with lock and chair	1	1	1
Set of shelves	1	1	1
Hand washstand	1	2	3
Dining table	1	1	1
Stools or chairs	10	14	18
China closet	1	1	1
Small dinner set	1	1	1
Fireplaces	1	1	1
Oven	8	6	8
Utility plates	([a])	([a])	([a])
Butcher knife	12	18	24
Paring knives	1	1	1
Teaspoons	8	6	8
Tablespoons	12	18	24
Table forks	12	18	24
	12	12	18

[a] 1 or more.

Intermediate school equipment in housekeeping course—Continued.

	For a class of—		
	8 girls.	12 girls.	16 girls.
Table knives	12	12	18
Small platters	4	6	12
Large platters	2	4	4
Drinking glasses	12	12	18
Pint bowls	8	12	16
Cups and saucers, ¼ liter	12	14	18
Mixing bowls, 1-liter	8	12	12
Stewpans with covers, 12 cm. diameter	8	6	6
Frying pans, small, 12 cm. diameter	8	6	6
Big wash pans, 50 cm. diameter	2	3	4
Big agate kettle, 30 cm. diameter, 22 cm. high	1	1	1
Big teakettle, capacity 4 liters	1	1	1
Big iron frying pan, native round bottom—"Carajay", 32 cm. diameter	1	1	2
Double boiler	1	1	1
Dish pans, 35 cm. diameter	6	12	12
Glass jars, 1-liter capacity	12	12	12
Tinajas, large size	2	2	2
Ollas, assorted sizes	3	3	3
Scales for weighing	1	1	1
Mirror, 40 cm. by 50 cm. or larger	1	1	1
Charcoal flat iron	1	1	2
Brooms	2	2	2
Galvanized-iron bucket	1	1	1
Scrubbing brushes	(a)	(a)	(a)
Dustpan	1	1	2
Garbage can	1	1	1
Fuel box	1	1	1
Saw	1	1	1
Hammer	1	1	1
Hatchet	1	1	1
Bolo	1	1	1
Nails and tacks	(b)	(b)	(b)
Hand towels	18	24	32

[a] 2 or more.

[b] A few.

Intermediate school equipment in housekeeping course—Continued.

	For a class of—		
	8 girls.	12 girls.	16 girls.
Dish towels, dusters	(a)	(b)	(c)
Table cloths	3	3	4
Napkins	18	24	36
12 meters white oil cloth			
Strainers	8	12	12
Graters	8	12	12
Sieves	8	12	12
Egg beaters	8	12	12
Turners	8	6	6
Rolling pins	8	12	12
Individual baking tins	8	12	12
Cooky cutters	8	12	12

[a] 1 piece white crape. [b] 1½ pieces white crape. [c] 2 pieces white crape.

Many makeshifts suggest themselves to a resourceful teacher; such as:

Various baskets to be used as strainers.

A flat tin through which a nail is driven many times makes a grater.

A tin can or pail through which a nail has been driven and the holes somewhat enlarged makes a colander.

A tin cut to convenient size and shape makes a good turner.

Sifters and jelly bags made of sinamay.

Egg beaters of wire or bamboo.

Bottle or bamboo rolling pins.

Coconut shell scoops, spoons, and dippers.

Butter and cream tins make individual baking dishes.

Coconut husk brushes.

Double boilers made by setting small vessels into larger ones, etc.

LESSON I

LEARNING TO DO THINGS IN THE BEST WAY

(To be read and discussed in class)

Childhood is a happy play time and womanhood is full of responsibility, but between the years of childhood and womanhood come the busy days in which a girl fits herself for the life work which is to come. Childhood is a thoughtless, care-free time and girlhood brings many pleasures; but womanhood is the happiest time in life, if a woman knows the things which she needs to know and can do wisely the things which she has to do.

Daughters learn from their mothers about the things that they have found of value in their lives, and the way to do things as the mothers have done them. It is a daughter's duty to learn all that her mother can teach her and to learn to do things quite as well as her mother can do them; but that is not enough. If, in the years past, every generation had done things just as the one before it did them, there would never have been any such thing as progress. Earnest men and women of every nation spend their lives in studying and experimenting and in searching for better ways of doing the common things of life. These people are taught slowly by their own mistakes, not abruptly or miraculously; and what they have experienced they know to be true. They leave records of their work in books so that all the world may profit by their lives. In this way civilization steadily advances.

If one generation were not a little wiser than the preceding one, if our grandmothers and great grandmothers ever so far back had done everything just as their mothers and grandmothers did, there would have been no civilization and we should all be living like the savages in the hills. Likewise, if we today should never change but should keep on doing everything in the same old way, there would be no advance in civilization during our time.

It is not by any marvelous process that the world advances. Change for the better comes as the grass grows—secretly and silently, in countless humble ways and places. What is needed to help civilization onward is intelligent, unselfish workers, who day by day make the nation's home life what it should be. We determine our lives by our everyday living; and if we are to grow into more perfect types of womanhood and are to do our part in making the world a better place in which to live, we must give thought [redacted] [redacted]

and study to the best ways of doing home tasks and must practice those best ways until they become everyday habits.

> "Heaven is not reached at a single bound,
> But we build the ladder by which we rise
> From the lowly earth to the vaulted skies,
> And we mount to its summit, round by round."

It is our duty to improve our home life and we must try very hard not to let ourselves be held back by superstition from doing those things which we know to be for the best interests of the family and the nation. We must try to realize that home making is the most important work in the world, and that national and industrial prosperity depends in large part upon women and upon their ability to do wisely in the homes the common things which make people healthy and happy.

EXERCISE 1

(First, oral; then written)

Make a list of the common things which we use in everyday life but which our grandmothers did not have: For example, petroleum lamps, sewing machines. Arrange the articles named under four headings:

(*a*) Things to make work easier; for example, *matches*.
(*b*) Things to beautify our homes; for example, *photographs*.
(*c*) Things to eat; for example, *biscuit*.
(*d*) Things to wear; for example, *leather shoes*.

Do not try to do this until after you have had a talk with some elderly people. When you are talking to these people, remember that they know many things which you will never know, and that perhaps they are wiser in many ways than you ever will be. Try to see things from their viewpoint. If you are very sympathetic, they will probably tell you many interesting things about the days of long ago. If they do this, write out the conversation so that you may not forget it.

LESSON II

PRACTICAL HOUSEKEEPING

EXERCISE 2

(Pupils should answer these questions while the class is working in the kitchen.)

Question. What is a kitchen?

Answer. A kitchen is a room set apart for the preparation of food.

Q. What quality is of first importance in the kitchen?

A. Cleanliness is the quality of first importance in a kitchen.

Q. Why?

A. Because dirty food may cause sickness.

Q. What furniture is needed in a home kitchen?

Tell the use of each piece named.

(This list should contain only the things in use in your own kitchen. Be sure to name everything. One girl may write on the blackboard as the names are given.)

Q. How many of you have a work table in the kitchen at home?

Q. Why do we need a work table in the kitchen?

A. Because without a work table, we must prepare the food and wash the dishes on the floor.

Q. Why is the floor in a clean kitchen any dirtier than the table?

A. Because we walk on the floor and bring in dust on our skirts and feet.

Q. What harm does the dust do?

A. In the dust there are many harmful germs. These get into the food and cause sickness.

Q. Is there any other reason why we should not work on the floor?

A. If a worker continually bends over in her work, her chest becomes narrow and her lungs are weakened, so that she is more likely to contract tuberculosis.

Q. Why should the work table be covered with zinc?

A. When zinc is scoured and scalded, it becomes perfectly clean. Liquids cannot soak into zinc as they do into wood.

Q. Why do we need chairs in the kitchen?

A. Because it is natural to do our work in the easiest way; and if we may not sit at the table, we must either do our work on the floor or else stand up, thus unnecessarily tiring ourselves.

Q. Why do we need a large covered can for refuse in the kitchen?

A. In doing kitchen work, we find many things that we wish to get rid of; and if there is not a proper and convenient place in which to dispose of them, it is natural to throw them out of the window or upon the floor.

Q. Why is it wrong to throw refuse about?

A. Because it attracts flies, mosquitoes, and ants, and causes sickness.

Q. Which is of greater importance, the can or the tight cover?

A. They are of equal importance.

Q. Why?

Q. How must the garbage can be cared for? Give reasons.

A. It must be emptied in some proper place at least once a day, and be washed with warm water and soap, then scalded with boiling water.

Q. How should kitchen tables and the boards used in preparing food be cared for?

A. All crumbs and clutter should be brushed off and the board or table should be washed with a wet cloth and soapy water. Only enough water should be used to do the required work. The water should not be slopped on the floor.

A little wood ashes should be sprinkled over the surface to be scrubbed, and the table should be scrubbed with the brush following the grain of the wood. The boards should be rinsed clean and wiped as dry as possible.

Q. How should the teakettle be cared for?

A. At the close of the day's work, the water should be poured out and the kettle should be left bottom-side up on the kitchen table.

Q. How should dust cloths and scrubbing cloths be cared for?

A. They should be washed often enough to keep them clean. They need to be boiled occasionally and laid on the grass in the sunshine to bleach.

Point out each of the following and tell for what it is used and of what it is made:

work table
refuse can
chairs
kettle
cover lifter
fire shovel
stove
oven
stewpan
measuring cup
bowl
mixing spoon
towel
carajay
woodbox
breadboard
jar
frying pan
holder
olla
teakettle
duster

LESSON III

NAMES AND USES OF THINGS USED IN THE KITCHEN

EXERCISE 3

Study carefully each of the following articles so as to be able to tell its name, its use, where and of what it is made, how it should be cleaned and cared for, and a reasonable price to pay for it:

- steel knife
- enamel saucepan
- rolling pin
- mixing bowl
- frying pan
- wire strainer
- preserving jars
- funnel
- flatiron
- can opener
- toaster
- oilstove
- silver spoon
- drinking glass
- flour sieve
- water pitcher
- teakettle
- coconut-fiber brush
- grater
- soup kettle
- corkscrew
- egg beater
- meat grinder
- cookstove

EXERCISE 4

Write on the blackboard a list of the most desirable kitchen utensils. Beside each article named, write the actual cost.

Prepare a paper telling how you would invest your money, if you were given ten pesos with which to buy kitchen furnishings. Read and discuss these papers in class.

LESSON IV

THE FIRE

EXERCISE 5

Question. Every kitchen must have some place in which to cook food. What different kinds of fireplaces have you seen?

Q. Which would you rather have in your own kitchen?

Q. What is the reason for your choice?

Q. Why is it hard to work over an open fire?

Q. Is this only a matter of discomfort or, if followed day after day, will it do actual harm? (Before you answer, try to recall the names of all the cooks you know who are advanced in years. How many have poor eyes? How many have tuberculosis?)

Q. Why should we try to make the kitchen a comfortable place in which to work?

Answer. Because much of the important work of the home is done in this room; and if the kitchen is an uncomfortable place to stay in, the work will be done in the quickest and not in the best way.

Q. What besides wood do people often use for fuel in their kitchens?

Q. Can any member of the class make fire as the savages who have no matches do? Tell or show how this is done.

Experiment.—Scratch a match and watch carefully. Notice that the match works on the principle of rubbing two pieces of wood together, excepting that there is something on the match that makes it take fire very easily.

Q. Some kinds of wood are light and burn more easily than others. Name a kind of wood that takes fire quickly.

Q. Some kinds of wood are very hard and heavy. Find a piece of hard wood.

Q. Name some kinds of wood which we commonly buy for firewood.

Q. Which of these is hard wood? Which is soft wood? What kind of wood makes good charcoal? Tell some of the uses of charcoal. How is charcoal made?

Exp.—Show how to lay a fire so that it will burn quickly.

Q. Why must the little sticks be laid crosswise and loosely?

Exp.—Put a lighted match upon a plate and then place over it an inverted drinking glass. What happens?

Exp.—In like manner place an inverted glass over a lighted paper and see what happens.

Q. Tell what happened in each case. Why?

Q. How may a fire be put out without water?

Q. Did you ever see a fire smothered with sand? With a blanket or with a wet towel? Tell the class about it.

Q. Why is it bad practice to kindle a fire with petroleum?

A. Because by so doing, there is danger of setting the house on fire. Moreover, petroleum costs money and does the work no better than small pieces of soft wood, bamboo, or shavings. It is always wrong to waste money.

If we have no kindling wood and are determined to use petroleum, the best way to use it is to soak a little piece of brick in the oil; then when ready to light the fire, put the brick into the stove. Or, put a little petroleum upon the ashes, and then put these ashes in the bottom of the fireplace. The brick or the ashes will hold the blaze until the wood kindles. This method does not take so much oil and there is no danger of setting fire to the house when petroleum is used in this way.

EXERCISE 6

(Review—First, oral; then written)

Use these words in sentences and learn to spell them:

blaze
hard wood
grate
petroleum
ashes
charcoal
kindling
brick
soft wood
chimney
draft
shavings
flame
smoke
live coal
kindle

LESSON V

CLEANING KITCHEN UTENSILS

EXERCISE 7

Question. Look about you. What kitchen utensils do you see?

Q. Of what is the *carajay* made?

Q. If the carajay is put away wet, how will it look the next day?

Q. How may we keep ironware from rusting?

Answer. By keeping it perfectly dry. When this is not possible, the utensil should be thoroughly cleaned, dried, and rubbed over with a little grease.

Q. How may it be cleaned when it is badly rusted?

A. It should be scoured with sand or ashes, greased thoroughly, and sprinkled with powdered quicklime. It should be left overnight, and in the morning should be washed with plenty of warm, soapy water and rinsed thoroughly with clear hot water.

Q. Point out and name all things in the kitchen which are made of iron.

Q. What articles made of granite ware are there in the kitchen? Point out each article as named.

Q. Why should we never scrape granite ware with a knife when cleaning it?

A. Because to do so would probably break the enamel.

Q. How should granite ware be cleaned?

A. It should be rubbed with ashes, washed in warm, soapy water, rinsed clean, and wiped dry.

Q. What articles of tin do we use in the kitchen?

Q. Does tin rust easily?

Q. How shall we keep it from rusting?

A. It should be cared for in the same way as iron.

(NOTE.—When cooking utensils are washed, both inside and outside should be cleaned, and the seams given special attention. A match or a bamboo sliver is a good thing with which to scrape out the seams. Keeping the seams clean is very important. Many people are made sick every year by eating food prepared in dirty cooking utensils.

To avoid blackening granite kettles when they are set upon the open fire, the bottom of each should be dampened and rubbed thoroughly with soap. The soot will wipe off easily and the kettles may be kept bright until they are worn out.)

EXERCISE 8

RECIPE—Soap

Ingredients:

- **2½ kilos (5 lbs.) of cheapest grade olive oil, or any clean fat.**
- **½ kilo (1 lb.) of Babbet's lye.**
- **¼ kilo (½ lb.) of borax.**
- **2 tablespoonfuls of ammonia.**

Method of Preparing.—Dissolve the lye in 6 cupfuls of cold water. When thoroughly dissolved, add the borax and ammonia; then stir in the oil slowly. Stir for eight minutes; the mixture should then look like honey. Have ready a small wooden paper-lined box, or a pasteboard box; pour the soap into it, and when firm, cut into cakes and put away to harden.

RECIPE—Soap Solution

To a bar of laundry soap shaved fine, add 2 liters of water and boil until the soap dissolves. Use a teaspoonful or more of this soap when washing dishes, dusters, or pieces of cloth.

(NOTE.—This is a convenient way of using soap, especially in the school kitchen where several are working at the same time.)

EXERCISE 9

(Review—First, oral; then written)

wash
rinse
scour
clean
rub
polish
dry
shake
wipe
brush
air
ventilate
dust
sweep
dampen

Use each of these words in a sentence so as to show that you know its meaning. Make motions showing how to rub, wipe, brush, shake, etc.

EXERCISE 10

(Review Exercise 3, Lesson III)

RECIPE—Whitewash.

Ingredients:

2 kilos whiting.
70 grams of common glue (2½ oz.)

Method of Preparing.—Leave the glue overnight in water enough to cover it well. Mix the whiting with cold water to the proper consistency for applying it with a brush. Heat the glue until it is dissolved and pour it hot into the whiting mixture. Stir well and apply in the usual way.

The school kitchen should be whitewashed once or oftener every year.

LESSON VI

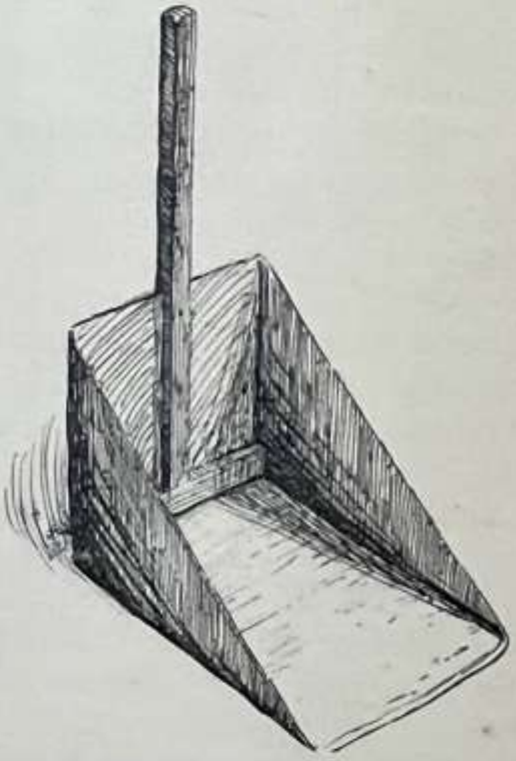
SWEEPING AND DUSTING

(To be read and discussed in class)

When a room is being swept, the chairs, tables, and all other furniture should either be removed or changed to the side of the room opposite the sweeper. As little dust as possible should be raised. The sweeper should sweep toward the center of the room and should keep the broom close to the floor. The dust collected should be burned. It should never be swept through the floor or left in the corner to be scattered again. A piece of flat tin with one edge bent to hold the sweepings makes a convenient dust pan. The dust pan and broom should be kept together, and the dust pan should always be used whenever any sweeping is done. If the dust is taken up in the hands, there is a great temptation to scatter the last bit rather than to burn it. Before the sweeping is begun, all food in the room should be covered, and no sweeping should be done when cooking is going on or when the table is set for the meal.

The fine dust that floats about in the air and then settles should be wiped up with a damp piece of soft cloth. It must not be flicked off with a cloth or other article, as that only makes it float about again and settle somewhere else. The walls, pictures, and other ornaments should receive first attention. The dust cloth should frequently be shaken out of the window. The entire surface of every piece of furniture in the room, not simply the top, should be wiped until it is free of dust. Door and window ledges and walls should come in for similar attention, and spiderwebs should be removed. The dust cloths must be kept clean. They should be washed and aired after each using.

Floors should be wiped often enough to keep them free from dust. They may be polished with crushed banana leaves, or with a soft cloth on which a little wax or candle has been rubbed. Cleaning a floor with petroleum makes it look bright and drives away ants and other insects; but the cleaning must be properly done, for when petroleum is used carelessly for this purpose, it fouls the bottoms of skirts and keeps dirty and grimy the clothing of little children who play on the floor. When the housekeeper desires to clean a floor with petroleum, she should select a soft, dry cloth, moisten it with a tablespoonful of petroleum, and rub the floor until the oil is evaporated. The cloth should then be remoistened and the process repeated on another bit of floor space. Afterwards, the whole floor should be gone over with a clean, dry cloth and polished until a white cloth may be passed over it without becoming soiled. To make



Dustpan made from petroleum can.

this condition possible, the floors must be washed and scrubbed thoroughly with soap and water before they are waxed, or polished with banana leaves, or wiped with the oiled cloths.

EXERCISE 11

Clean the school kitchen thoroughly.

EXERCISE 12

(First, oral; then written)

Question. Why do you cover food before beginning to sweep?

Q. What utensils are needed for sweeping and dusting?
Q. Why should dust be burned?
Q. What is dusting?
Q. What is the reason for dusting?
Q. What should be used as a duster?
Q. How should a room be dusted?
Q. How should a polished floor be cared for?
Q. How should dust cloths be cared for?
Q. How should floor cloths be cared for?

LESSON VII

(To be read and discussed in class)

TROUBLESOME INSECTS

Insects have always been a source of trouble to housekeepers, although it is only in the past few years that they have been recognized as a menace to health. Certain insects, such as lice and bedbugs, have been so long associated with the idea of personal uncleanliness that to have them in the home is considered a disgrace; and they are never mentioned in polite society except when there is urgent need of doing so. It is no more difficult to keep clear of lice and bedbugs in tropical climates than elsewhere. They may always be controlled by habits of cleanliness. But cockroaches, ants, flies, and mosquitoes are more difficult to combat in the tropical climates than in the temperate zones, because they thrive better in warm weather. Moreover, because of a neighbor's ignorance or indifference, these insects may thrive and cause even a careful person much inconvenience; but where the entire population is intelligent, and where public opinion forces people to do their duty, who are indifferent to the public welfare, very little difficulty is experienced in keeping free from these pests.

Lice and bedbugs are clearly the result of uncleanliness within the house. Ants and cockroaches may breed within or outside the house, and flies and mosquitoes may breed within the house, or in the gardens, around barns, or wherever there are manure piles or stagnant pools. Flies and ants are attracted to the house by food or by filth left carelessly about; but mosquitoes come to suck the blood of persons. Dogs and cats improperly cared for fill the house with fleas.

The housekeeper must be constantly on the alert if she does not want her food infected and her family made uncomfortable by these pests.

Each insect is provided with special tools for getting its food. Each has its special habits of life; but scientific men, by studying the bodies of insects under the microscope and by watching their habits, have learned so much about them that we now know how to protect ourselves and our homes from their attacks.[1]

If we should name the insects that live in our homes, bite our bodies, destroy our food and clothing, or cause us trouble and discomfort, we should not forget a single one of this list: Flies, mosquitoes, lice, fleas, bedbugs, moths, silverfish, cockroaches, crickets, grasshoppers, white ants, the common household ants, centipedes, scorpions, and spiders.

Flies are the worst of all these pests, because they scatter disease as no other insects do. They lay their eggs in the dirtiest places, preferably in horse or cattle manure, in human excreta, or in the decaying flesh of dead animals. Their wings permit them to fly straight from this filth to

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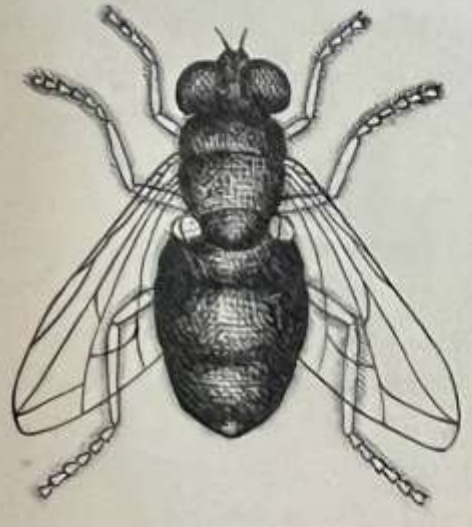
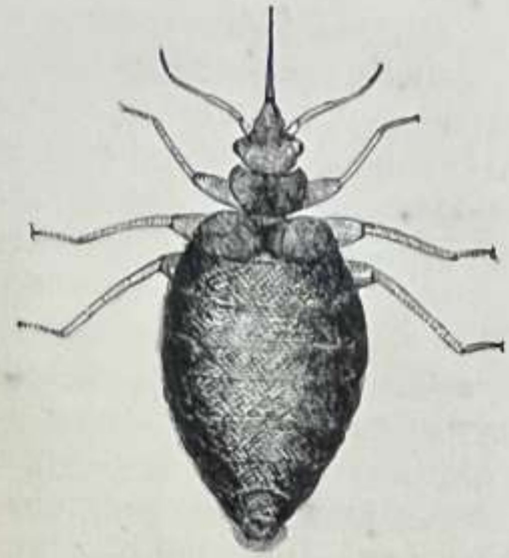
[1] A microscope is a very good thing to have about a school, and wherever possible, there should be one on hand. Pupils should catch insects and study them under the microscope. If a bedbug, for instance, is examined it will be found so thin and flat that it can hide itself in any crack. An examination of a flea would show that it has such strong legs, such quick action, and such hard armor that it has no trouble in escaping from its enemies when pursued.



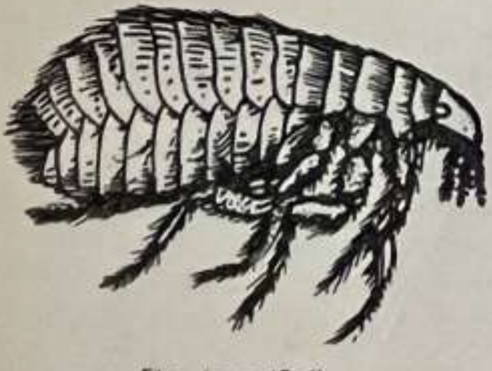
House fly (magnified).



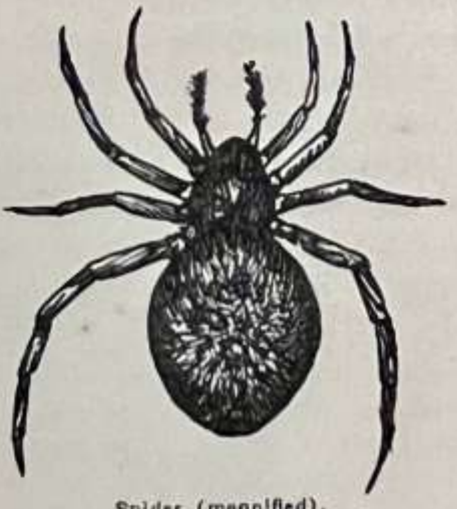
Bedbug (magnified).

any food which is not covered, and a single fly may carry thousands of disease germs on its feet. Cholera, dysentery, typhoid fever, and tuberculosis germs may all be carried by these insects. They enter sick rooms and carry infection from them. Flies are directly responsible every year for the death of many people, especially babies whose skins are very tender, and who cannot keep the flies away from their lips and eyes.

It is easier to prevent flies from breeding than it is to get rid of them after they are bred. It takes about ten days for a fly's eggs to hatch; five days to produce the maggot, or white worm-like pupa; and five more days for the pupas to change into flies. If manure is to be used for fertilizing,



Flea (magnified).



Spider (magnified).

it should be kept in a fly-proof box or house. Vaults should receive a layer of sand or ashes each time they are used, and once a week or oftener should be treated with dry lime.

After flies are bred we may fight them by screening the doors and windows of the houses, by killing them, by catching them with fly paper, and by carefully covering and screening all foods. Babies should be protected from flies by screening the beds.

Next to the fly the mosquito is the most troublesome of all insects that infest the home. Mosquitoes not only cause discomfort at the time they bite, but they are directly responsible for fevers of various kinds, especially malaria. They are such a nuisance and such a menace to health that the civilized world has recognized the necessity of making a scientific study of their habits and a determined campaign against them.

It has been found neither difficult nor expensive to rid a neighborhood of mosquitoes, if everybody does his part. Mosquitoes always breed in stagnant water. Every possible effort must be made not to have any standing water in the neighborhood. The kitchen drains; the vaults; the receptacles filled with water and set on thatched roofs as protection in case of fire; and all sluggish streams, ditches, and puddles should receive proper attention. No rain water should be allowed to stand. The low ground where it settles should be filled up and graded so that the water falling thereon may easily drain off. The sides of all drains where water is constantly flowing should be kept clean; and occasionally the surface of the drain should be smoothed and evened and the damp earth around it sprinkled generously with lime.

Mosquitoes breed in clean as well as in dirty water and are to be found in water tanks and wells. They hide and flourish in the eaves of houses and in bamboo fences, banana trees, and the low branches of growing plants. It is sometimes impossible to do away with all the breeding places near the house; but whenever there are many mosquitoes, thoughtful effort should be made to discover and do away with the breeding places. All standing water should be screened or covered with petroleum; and weeds, bushes, and tall grass should be cleared away from about the house.

Mosquitoes may be driven out of a house by a smudge made by burning dried orange peel, coffee, or sugar. Any strong, pungent odor such as camphor or pennyroyal will drive them away. When a person is obliged to sleep in the open without a net, rubbing the exposed parts of the body with petroleum will keep off the pests and may prevent an attack of malaria. The mosquitoes in a room may be destroyed by oiling a leaf or plate with coconut oil and swinging it about to catch them, or by using it as sticky fly paper is used.

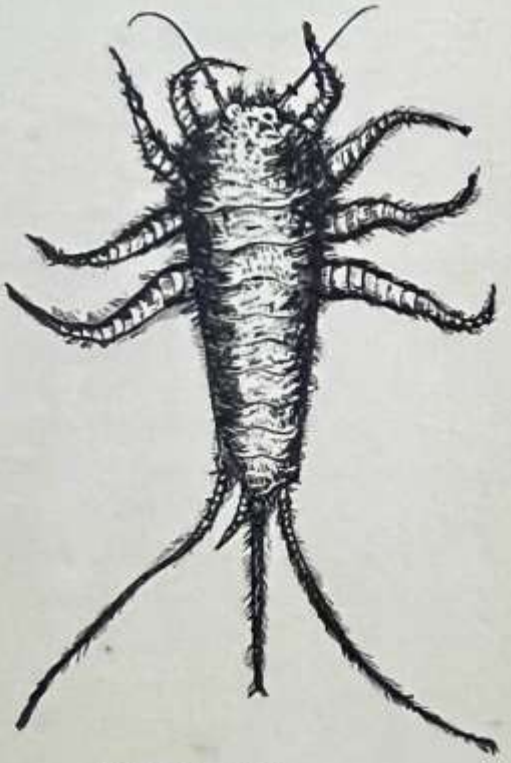
A housekeeper should feel it her duty to do everything in her power to free her home from mosquitoes. She should kill every mosquito she sees and should have mosquito nets, not only for each member of the family, but for the servants as well.

Mosquito nets are quite as necessary as pillows and blankets; for if we are to enjoy refreshing sleep and to awaken ready for a day's work, we must not be obliged to fight mosquitoes all night. Moreover, it is positively inexcusable for well-to-do, intelligent people, who understand that mosquito bites cause malaria, to willfully expose themselves and the members of their families to disease by sleeping without nets.

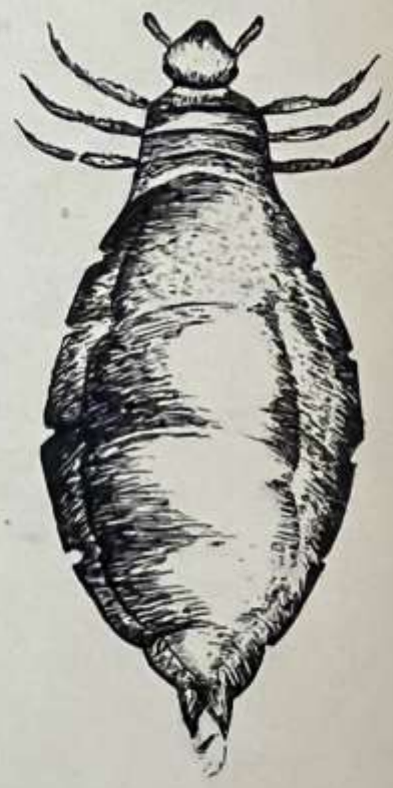
It is also false economy for the head of a household to neglect his servants and thus to bring sickness into his family through them. Moreover, a servant working for even the lowest wages is entitled to the necessities of life; and in a tropical country mosquito nets are without question a necessity.

Lice are very disgusting vermin. They appear most commonly where cleanliness is not observed and especially where body clothing and bed clothing are used for a long time without being changed. It is not true that all healthy people have lice. We get them by being near some one else who has them. Educated girls should see to it that the members of their households are free from these disgusting pests; for if any one in the house has lice, it is a constant fight for the other members of the household to keep free from them.

There may be some excuse for getting lice, but there is never any excuse for keeping them. Head lice are more common than body lice, but cleanliness will do away with both. Petroleum and vinegar—things found in every home—will rid the hair of them and, if carefully used, will give as good results as costly medicines. (See lesson on care of the hair.)



Silverfish moth (magnified).



Louse (magnified).

No special treatment is necessary to rid the body of lice. A bath and clean clothing will meet the immediate requirements, while the discarded clothing should be instantly boiled.

Fleas are another pest that causes us much trouble and discomfort. They are small, black insects which jump about in such a lively manner that they are hard to catch and harder to hold and kill. They generally breed upon the bodies of dogs and cats and other animals and are often carried from one place to another on clothing.

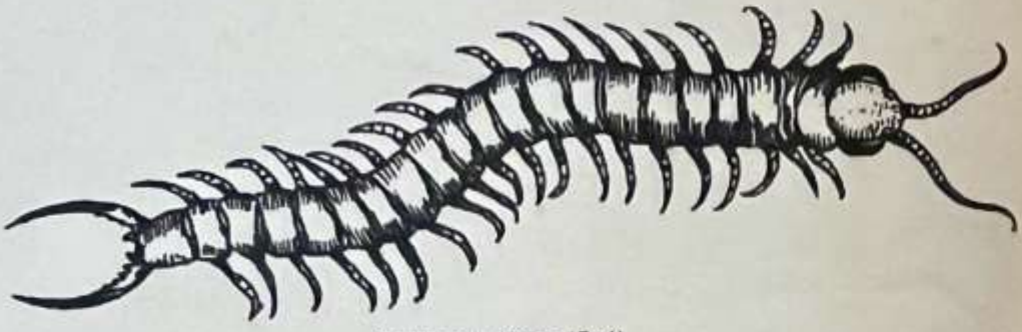
The bite of a flea causes swelling and intense irritation, the skin around the place bitten forming an irregular-shaped lump larger than a mosquito bite. The irritation may be relieved by salt dampened with water and rubbed into the skin. A strong solution of salt and water will also relieve the irritation caused by the bites of other insects.

To rid the body of fleas, it is necessary to change all the clothing and to take a bath. To rid the house of fleas, it is necessary to catch and kill them. Dogs that are allowed in the house should be washed with warm, soapy water in which there is a little petroleum—a tablespoonful to 2 liters of water. This will kill the fleas or drive them away. The dog should be rinsed in clear water before the bath is finished. If this last detail is not observed, the dog will lose its hair.

Bedbugs are another great nuisance. They live in beds, in bamboo furniture, in cracks in the floor, and in old and rotted wood, and get their food by sucking the blood of persons. To rid a bed of these insects, a thorough search should be made and all bugs brought to light should be killed. Boiling water should be poured over the bedstead and into all the cracks. After this is done, the bedstead should be rubbed repeatedly with petroleum and all cracks filled with it. There must be absolute cleanliness everywhere in the house, but especially about the bed. Daily watchfulness is necessary for a long time before the bedbug pest can be conquered and the housekeeper may feel sure that there are no more of them.

Spiders, scorpions, and centipedes are all more or less poisonous; but they are not so numerous and in comparison with flies and mosquitoes make little trouble for human beings. A house that is light, clean, and dry is not likely to be infested with them.

Besides the insects that suck blood, there are many others that make trouble for the housewife by destroying food, clothing, furniture, and even the house itself. Of those that eat clothing, the silverfish is perhaps the most troublesome, for it eats the best silks, laces, piña, jusi, and any fine cloth that is laid away with stiffening in it. Clothes,



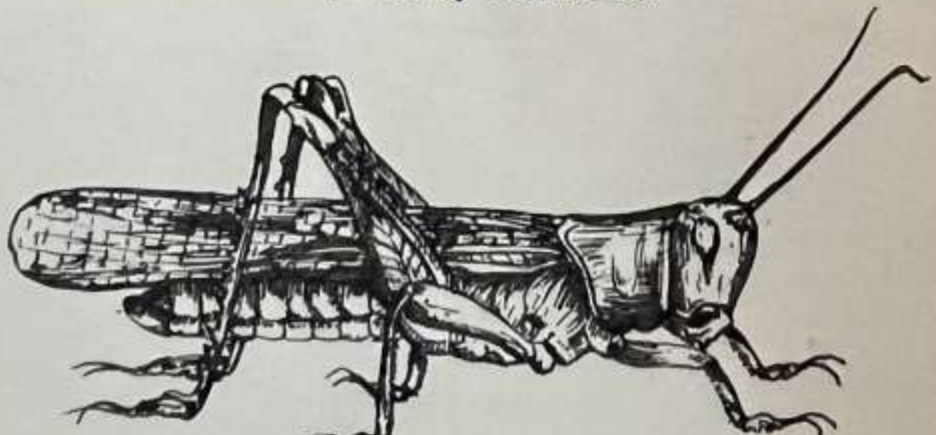
Centipede (magnified).

in order to be protected from the silverfish, must be put away in air-tight insect-proof boxes. These boxes should be kept in a dry place and their contents examined frequently. It is never well to store fabrics away in a starched condition.

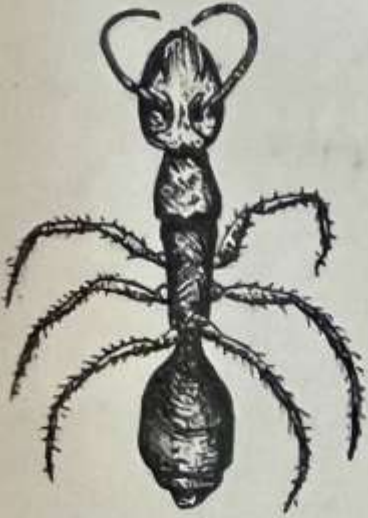
Crickets, cockroaches, and grasshoppers will eat almost anything made of cloth; but they are especially troublesome in connection with soiled clothes that are waiting for the washerwoman. They also destroy food of various kinds. Cockroaches live in dark, damp places; all dark places that hold dirt, grease, moisture, or bits of food afford excellent shelter for them. If the house is to be rid of them, the kitchen and bath must be kept light and clean, and there must be no greasy boards or crumbs left lying about.

The following recipe is said to be effective in the way of killing off cockroaches; and owing to the simplicity of its ingredients, it might be worth trying:

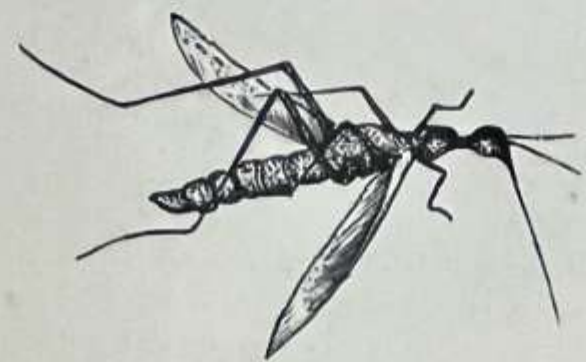
Stir together 1 cup cornmeal, ⅛ kilo borax, 2 tablespoonfuls sugar, and enough water to make a stiff paste. Mould into small cakes and set away to harden. Break into small pieces and scatter about the runs and other places frequented by the roaches.



Locust (magnified).

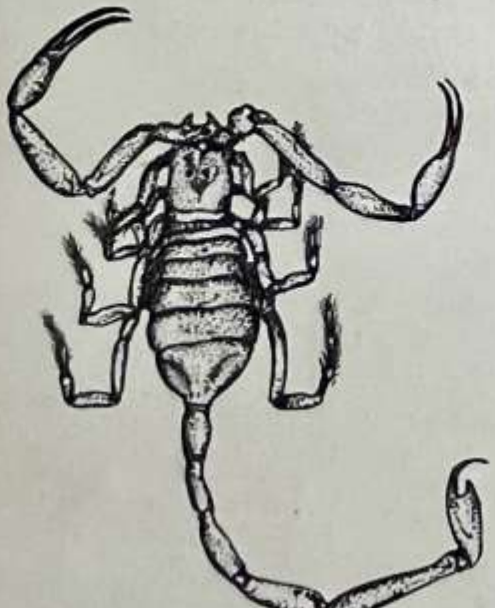


Black ant (magnified).



Mosquito (magnified).

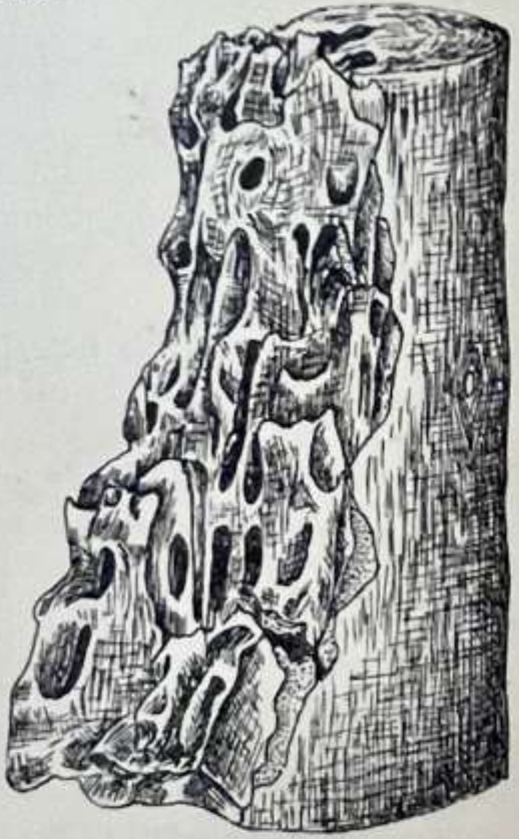
Ants are another source of great annoyance to the housewife, and particular care must be taken to keep them away from the food. The food should be kept in air-tight receptacles or surrounded by water so that the ants cannot get to it. Tables should be insulated by setting the legs in cans of water or on cloths wet with petroleum. Baskets hung from the ceiling should have a bit of petroleum-soaked string tied around the rattan or wire from which they are suspended. It is said that by repeatedly pouring boiling water, or scattering red pepper or borax, over ants' runs they may be driven away.



Scorpion (magnified).

The most destructive insects that annoy the housekeeper are the white ants. They destroy all sorts and conditions of material, especially wood. If left undisturbed, they eat furniture, boxes of clothing, books, and the very house itself.

It is difficult to fight white ants successfully. They and their nests should be dug out and burned. The runs should be scraped away and the place soaked with petroleum. As soon as white ants appear, a saturate salt solution should be poured around the posts of the house where they are set into the ground.



Home of white ants.

Moths are one of the most troublesome insects of the temperate zone, but they do comparatively little damage in the tropics, because they attack only woolen articles. As there are but few woolen fabrics found in Filipino homes, no extensive discussion of moths and their habits is necessary.

EXERCISE 13

Name the insects that live in our houses, bite our bodies, or destroy our food and clothing.

Describe each.

What trouble does each make for the housekeeper?

Which of all these is the worst pest? Why?

How may we prevent having many flies?

How may we prevent flies from doing so much harm?

EXERCISE 14

Which insects bite our bodies and make us uncomfortable?

Which of these does the most harm? Why?

How may we prevent having many mosquitoes?

When it is impossible to prevent having mosquitoes, how may we prevent their harming us?

What are some of the places where mosquitoes breed?

How may we protect ourselves from mosquitoes?

What makes a good smudge to drive mosquitoes out of a room?

What is the value of a mosquito net?

Why should servants be supplied with nets at the employer's expense?

What strong odors will drive mosquitoes away?

(NOTE TO TEACHERS.—Be sure that the pupils understand what insect is being talked about. Some of the insects may be brought into the classroom in bottles with nets over the top. Be very careful not to let them escape. If there is a microscope examine the insects carefully and see how admirably they are made for the lives they live.)

EXERCISE 15

How do we get lice?

How may we rid ourselves of lice?

Is it difficult to rid the hair of lice?

Is there any excuse for a girl's having lice?

Is it true that all healthy people have lice?

Why do we put acid in the rinsing water after washing the hair with petroleum?

EXERCISE 16

How do fleas get into the house?

How may a flea bite be recognized?

What will relieve the irritation resulting from insect bites?

What will drive fleas away from animals?

How may a bed be cleared of bedbugs?

EXERCISE 17

What insects eat our clothing?

Which is the most troublesome insect in these Islands?

What will prevent silverfish from eating fine cloths that are laid away?

What harm do crickets, cockroaches, and grasshoppers do in our homes?

EXERCISE 18

In what kind of places do cockroaches live?

How may we avoid having many cockroaches about our kitchens?

How may ants be kept away from food?

What will drive ants away?

What is the most destructive insect of all?

What mischief do these pests do?

What simple means may we take to rid the home of white ants?

LESSON VIII

TABLE SETTING AND SERVING

(To be read and discussed in class)

Our self-respect demands that we take our food with dignity and with some degree of nicety. We owe it to our claim of being educated to see that any thing which is offered as food to members of our households is clean and is served in an appetizing manner. The servants, as well as other members of the family, should be encouraged to place their food upon clean tables, to eat with forks and spoons, and to sit at a table when they eat. These customs make for better health and more physical endurance and so are worth while, regardless of the niceties of civilization.

It is not at all desirable for a family with an income of only forty or fifty pesos a month to spend for fine table service the money that is needed for the necessities of life. Tablecloths, napkins, and fine dishes are comforts to be afforded only by people who have a sufficiency of money to spend. They are not absolute necessities; nor are they a wise investment for people in poor circumstances, who should receive real value for every centavo spent. It would not be right for a family whose income is extremely small to spend money for unnecessary table service. Each should serve his food in a manner befitting his means and station. People who can afford the necessities and some of the comforts of life are quite right in indulging themselves in polished tables, good linen, and individual plates, silver forks, and spoons. These things, are, however, quite beyond the income of really poor people; but no one is so poor that he cannot afford scrubbed tables, absolutely clean cooking utensils, and individual spoons, even if they be only of wood or tin. It is impossible for workaday people to adorn their tables as the rich do, and foolish for girls to feel that, because they cannot afford to use tablecloths and napkins everyday, they cannot serve their food attractively. No one need be any more ashamed of an humble table service than of a modest house. No one need make apologies or blush to set a visitor down to a bare table that is scantily supplied with dishes, if the table and dishes are clean and the food which is served is wholesome and appetizing.

It is a curious fact that our food does us most good when we are contented and good-natured. The housekeeper should make it a point to have meal time the happiest time in the day. One way to do this is to make the table look as neat and attractive as possible.

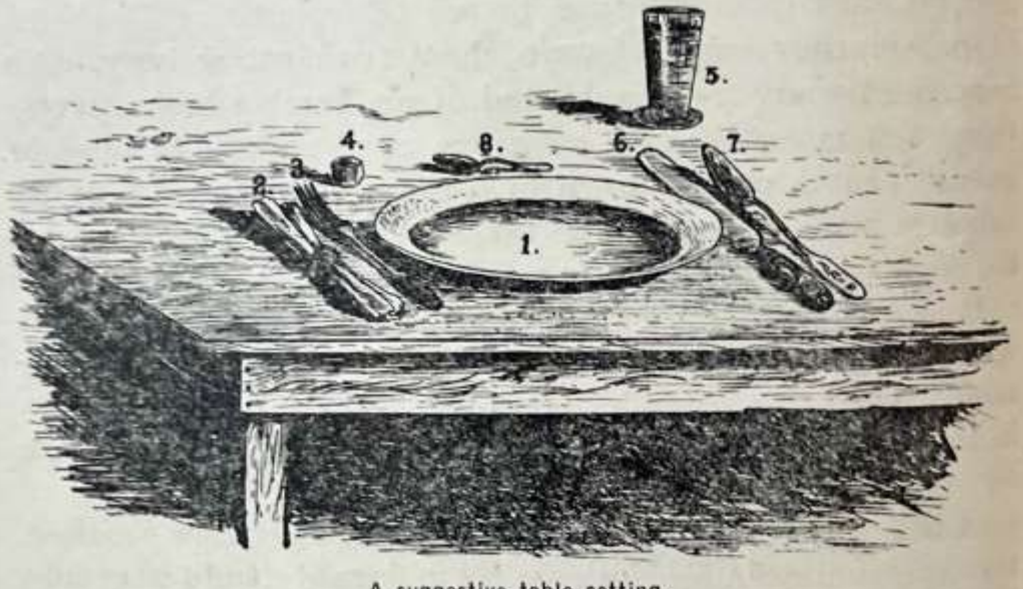
In the homes of the well-to-do, the table should be dusted carefully and a double cloth of cotton flannel should be evenly laid upon it. This cloth is called the "silence cloth" and there are many reasons for using it. It keeps the dishes from rattling against the wood of the table, it makes the linen tablecloth which is spread over it look much handsomer, and it protects the table from hot dishes and anything which might mar it.

The tablecloth should be spread evenly over the silence cloth and in such a way that the latter may not show. It should be laid carefully right side up, with the folds parallel to the edges of the table. A spotlessly clean table is a mark of refined luxury.

A tablecloth should not be starched, but should be ironed quite wet and until it is perfectly dry. This brings out all the beauty of the cloth. It should be hemmed rather than fringed, and, when possible, the napkins and tablecloth should match. A bowl of fresh flowers or a growing plant placed in the center of the table adds much to its attractiveness.

When the table is properly covered, we are ready for the dishes. Everything should be arranged in an orderly manner, and the dishes should be placed in an orderly position upon the table and right side up. A plate, a knife, a fork, a tablespoon, a teaspoon, a drinking glass, and a napkin should be placed for every one who is to eat at the table.

The plates should be changed as many times as is necessary, and plates for more than one course should not be stacked before each person at the beginning of the meal. The knife should be placed at the right side of the plate with the sharp edge turned toward the plate; the fork, on the left side with the prongs turned upward. Spoons are placed to the right of the knife and the napkin to the left of the fork.



A suggestive table setting.

1. Plate.
2. Napkin.
3. Fork.
4. Salt.
5. Glass.
6. Knife.
7. Tablespoon.
8. Teaspoon.

When a servant waits on table, the food should be offered at the left side of each person and the women should be served first. In placing a dish in front of a person, the waiter should stand at the right. The dishes should be removed from the right side. A servant should never reach across in front of anybody.

It is not at all necessary, in order to have a pleasing table service, to have a servant or any special person assigned to wait at table. In many of the middle class American and European homes, it is the custom for the family to serve themselves at meal time. This is a very pleasing custom and one that cultivates good manners and consideration for others. There is far more consideration shown by members of the family in waiting upon one another and in watching one another's wants than is usually shown by having poorly trained servants. When the table is set with care and all the things that are needed for the meal are at hand, there is little confusion and everything goes smoothly and pleasantly.

In American middle class homes where no servant is kept, meals are served in the following manner: Everything belonging to each course is placed upon the table at once. The dinner plates are heated and put in a pile at the father's place with the carving knife and fork at the back of them. The meat is put in front of the father, who carves and serves it. One vegetable dish is placed at the left of the father's place, and, when more than one vegetable is served, the other dish at the mother's place with saucers piled in front of it. Salt and pepper are placed to the right of the father and the mother. The plates are passed from hand to hand. When one course is finished, the older children working in turns remove the plates and bring the things necessary for the next course.

When all have finished eating and the meal is over, the older children remove all the dishes and brush the crumbs from the tablecloth into a plate; then they carefully fold the tablecloth in the same folds in which it was ironed and put it away for use at the next meal.

Indeed it is not difficult to serve the family meals daintily every day. For breakfast or "merienda" the cups and saucers should be arranged at the left side of the mother's place, the milk pitcher and the sugar bowl in front, and the coffee or chocolate pot at the right. The bread is at each person's place.

After chocolate or coffee has been served, the cup and the saucer should be put at the right of the plate. The spoon should be put into the cup, but as soon as the contents of the cup have been stirred, the spoon should be placed in the saucer.

Good table manners are very important. They reveal very quickly our home training and much concerning our circumstances in life. It is of no use for people to try to use fine table manners in company, if, at their daily meals, they allow themselves to shovel their food into their mouths, to scatter food upon the table cloth, to eat with their fingers, and to reach half way across the table for things.

In case of families of very moderate circumstances, the tablecloth and napkins may be dispensed with, but the table should be absolutely clean. If it is a hardwood table, it should be kept polished and mats may be used under the hot dishes to protect it. If it is a softwood table, it should be scrubbed thoroughly every day. The dishes and food should be arranged in an orderly manner. There should be a plate, knife, fork, tablespoon, and drinking cup for every one. The general dishes should contain serving spoons and no one should dip his individual spoon or fork into a serving dish.

The family should sit on benches or chairs of convenient height, and should eat slowly and assist one another, so that there may be no awkward or unmannerly reaching for things. There should be plenty of lively, good natured conversation carried on throughout the meal.

In the homes of the poor, where the people eat from low tables and sit upon the floor, the tables should be scrubbed and scalded and exposed to the sun every day. The dishes should be absolutely clean; and, if the cooking dishes are brought to the table, they should be set upon stands or leaves, so that the table may not become greasy and grimy. Every one should wash his hands and clean his finger nails before sitting down to eat. Every one at table should be provided with a spoon of some sort. Where any claim is made to civilization, the family must not be permitted to eat with their fingers; for this filthy habit scatters disease and brings about various undesirable conditions in the home.

EXERCISE 19

Prepare in turn the table for each of the three classes of homes, and illustrate all the points of serving mentioned. Clean the table and wash the dishes.

EXERCISE 20

Prepare and serve the following menu.

Bananas.
Soft-boiled eggs.
Fried corn-meal mush.
Biscuit.
Guava jelly.
Coffee.

LESSON IX

WASHING DISHES

(To be read and discussed in class)

There is no way by which an intelligent housekeeper may be more easily recognized than by her manner of washing dishes. Dishes should be washed with warm water and soap, rinsed in hot water, dried on clean cloths, and placed where flies and dust cannot get to them.

When the housekeeper is preparing to wash dishes, she should first scrape off any bits of food and then wipe the greasy dishes with a leaf.[1] Dishes sticky with egg and dough should be filled with cold water, other sticky dishes with hot water. If dishes are washed in dirty water, they will look and feel dirty. When all the dishes are ready to be washed, place a pan of hot, soapy water on the table, and beside it a pan of hot rinsing water and a tray.[2] The dishes should be washed with a cloth in the soapy water. Each article in the pan should be washed separately to avoid cracking and nicking, and should be passed through the rinsing water, drained a moment, wiped while still hot, and placed upon the tray. Soft towels are good for the table dishes, and coarser ones for the cooking dishes. A small coconut fiber brush is very useful in cleaning strainers, graters, and sticky dishes.

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[1] Put the soiled leaf into the garbage pail.

[2] A handy tray is made by nailing pieces of split bamboo about the four sides of a board of convenient size.

All dishes, including the cooking utensils, should be washed inside and out, and special care should be given to the seams in tin ware and enamel ware.

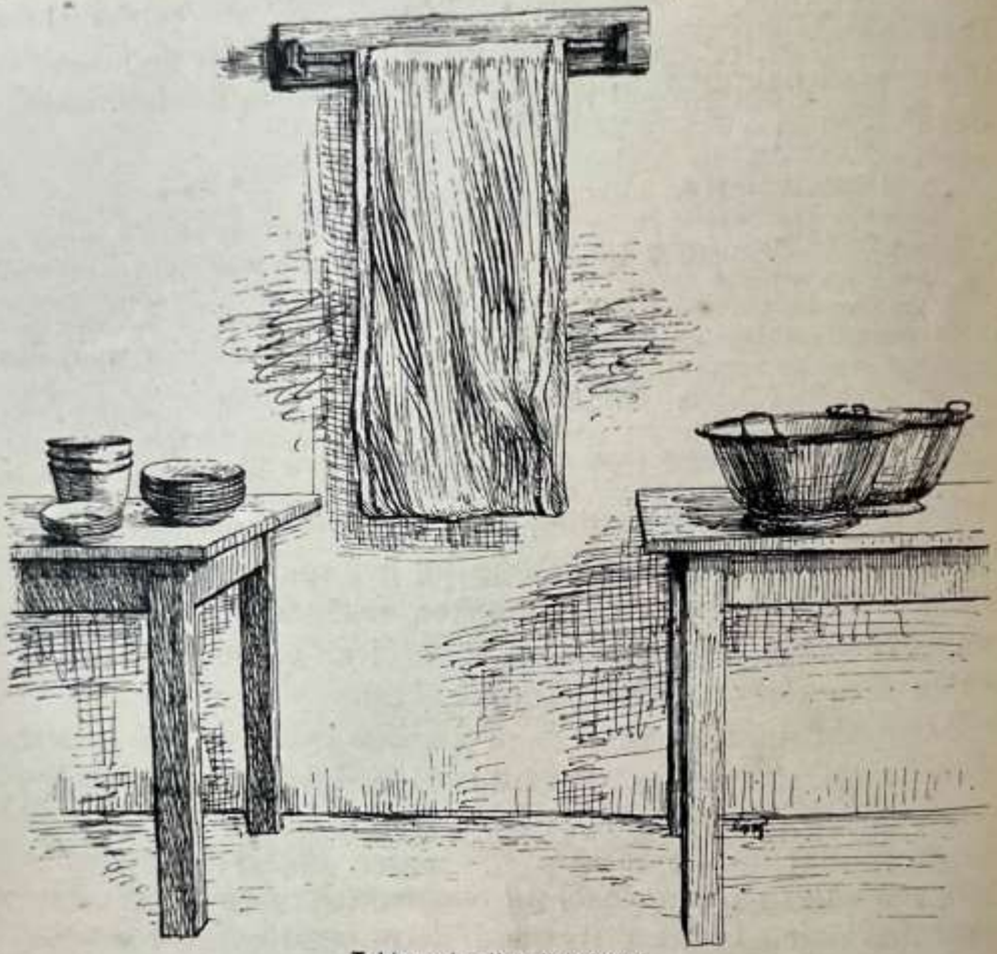


Table and roller dish towel.

The proper plan to be followed in washing dishes is to wash the cleanest ones first. The following order is good: Glasses, cups and saucers, knives, forks, spoons, plates, platters, vegetable dishes, and lastly the cooking utensils.

After the steel articles are washed, they should be scoured with wet sand or ashes and washed again. Dish pans should be scoured inside and out with a coconut fiber brush, rinsed, and then filled with hot water for washing the towels and dish cloths. These should be washed, rinsed, and hung in the sunshine to dry after each use. Once a week or oftener they should be boiled.

The housekeeper should be very careful to see that the cloths used about the dishes are always sweet and clean. To use dirty dish cloths is disgraceful. Unless they need bleaching, it is better, in drying dish cloths, to hang them upon a line than to lay them upon the grass where animals may track over them and many insects get upon them. Then, too, when they are laid upon the ground, they take up all kinds of bacteria, and need to be boiled again before they are fit to use.

(SUGGESTION TO TEACHERS.—For many reasons, long roller dish towels are better than the usual small ones. It is impossible to confuse them with the other kitchen cloths; as they are used only in wiping perfectly clean dishes, they do not readily become grimy; as their entire surface is always exposed to the air, they cannot mildew and sour like cloths thrown down in a wad; and the wet sections dry very rapidly.

The towels should be made the width of the toweling and about 2½ meters long, hanging down about 1¼ meters from the roller. It is suggested that a long towel be hung on either side of the table on which dishes are washed and that they be so adjusted that the bottoms of the towels are about 3 or 4 centimeters from the table. The roller is a small wooden cylinder as long as the toweling is wide. It is held on the wall by hooks in such a manner as to turn as the towel is used. Such a roller may easily be made in the school shop.)

LESSON X

CARE OF LAMPS

(To be read and discussed in class)

A good light is an absolute necessity in any home. The light has much to do with the general health of the family, especially where there are young people studying. A dim, smoky lamp, or one with a flickering flame which makes the work now light now dark, is sure to give weak eyes and many headaches to the person who works or studies by it. While one is working, he needs a good light just as much as he needs working materials. Lamps must be cared for properly, otherwise they soon wear out and are of no more use.

When a new wick is to be put into a lamp, the part that comes just above the burner should be saturated with oil and the wick then put into the lamp. The wick should then be lighted and the chimney put on so that the flame may burn evenly. It should be allowed to burn for a few minutes, and then be blown out. The wick should be rubbed with a piece of soft paper, and care should be taken that no charred bits are left upon the burner. If lamp wicks are cut, they are almost sure to burn unevenly and smoke. If an old wick burns unevenly, it should be taken out of the burner, a thread raveled out, and the wick treated as directed for a new one.

The lamp should be filled and the burner and bowl and all parts of the lamp carefully wiped. A lamp should never be filled while it is burning. Lamps should be filled in the daytime, and never put beside an open fire or flame of any kind, as the oil may ignite and cause much trouble. The chimney should be washed, wiped, and polished with soft paper. When the lamp is lighted, the flame should be kept low until the burner is heated, then turned up as high as desired.

When a lamp is blown out, unless the wick is turned down, petroleum will ooze out at the top. It is better not to blow down the chimney, but to blow across it. When a person blows directly down the chimney, the flame may be driven back into the bowl that holds the oil and may cause the lamp to explode.

Burners, when they become oily, should be boiled in strong soapy water in which there is a little soda. A spoonful of soda to a liter of water is the usual rule. If soda is not at hand, vinegar is good in the proportion of a tablespoonful of vinegar to a liter of water. If the wick smokes, it should be boiled in strong vinegar and water and then dried, and it will give a better light. If a wick is too wide for a burner it should not be cut, but threads should be drawn from the center until it is of the right width.

EXERCISE 21

Let each girl bring a lamp to school and clean it in class. Let the teacher also have a lamp before her and clean it step by step, the girls watching each step and then doing with their lamps exactly as she has done with hers. This exercise should be repeated several times during the year.

LESSON XI

EXERCISE BASED UPON FAMILIAR OBJECTS

We should take an intelligent interest in the familiar objects about us and be interested in the production of the objects which we use and in the people concerned in producing them.

These lessons are valuable not only because the information gained in them leads the pupil to express herself clearly, but because the habit of investigation is a most important one to form. People who learn to investigate intelligently soon outgrow superstitions; for most superstitions arise from want of care in finding out the truth.

Preparation:

Working with geographies or wall maps, find the places on the map where the articles under discussion come from, and discuss any pictures that may help you to understand the manner of their production. Reference may be had to the encyclopedia. Have before you all, or as many as possible, of the following articles:

candle
salt
flour
petroleum
nutmeg
pepper
vinegar
clock
lamp
dishes (such as plates)
knives
forks
spoons
drinking glasses
cooking utensils (such as kettles)
needles
scissors
pins
money
paper
ink
twine
coffee
chocolate
tea
lard
sugar
cheese
gulaman
sardines

EXERCISE 22

In its turn, take up each article listed and discuss it. Then answer the following questions about each.

Of what is it made?
Where was it made?
What sort of people prepared it for export?
How did it come to our Filipino town?
Is it used in all parts of the world?
For what is it used?
What thing, if anything, is a substitute for it?
Before it was discovered or invented, was any other thing used where it is now used?

Is the thing a natural or an artificial product?
Is it vegetable, animal, or mineral?

(NOTE TO TEACHERS.—Girls should be familiar with the things used in the school kitchen. They should also be able to name and recognize the utensils quickly and correctly, and should have such a practical knowledge of their value that they may decide intelligently which of all these things they really need in the home kitchen.

For this exercise, there should be certain kitchen utensils before the class. Let some member of the class hold up an object and call on some other to describe it as outlined. This exercise should be repeated at intervals until the girls are familiar with the things in common use in a well-equipped kitchen.)

LESSON XII

LAUNDERING EMBROIDERY, LACE, AND FINE CLOTHES

(To be read and discussed in class)

Embroidered handkerchiefs, or ruffles which have become yellow and very soiled in the making, should be basted firmly upon white cotton cloth and soaked over night in cold water. Then the water should be changed, after which the fabric should be taken from the cold water and washed in warm water with pure white soap. Rub as little and as carefully as possible. If the article still appears yellow, it should be boiled in strong soapy water, then rinsed in cold water and stretched tight on an embroidery frame to dry in the sunshine. Sometimes one finds it necessary to wet the articles several times in slightly blue water while they are still in the frames. They bleach while the sun is drying them. If articles are only slightly soiled, they should be washed with warm water and pure white soap and rinsed in cold blueing water without being taken out of the frame in which they were embroidered.

Lace should be washed with pure white soap and warm water, rinsed thoroughly, and then dipped into thin cold starch to which a proper amount of blueing has been added, as the lace is likely to turn yellow if no blueing is used.

Several thicknesses of bath towels or blankets should be laid upon a table and covered with a smooth white cloth. The lace should be laid right side down on this, covered with a cloth, and ironed until dry, the iron being pressed down hard. The cloth covering the lace should then be removed and the lace carefully picked out with the fingers.

Girl ironing.

Irish crochet should be washed and ironed in the same manner as any other lace. However, after ironing, each little picot should be pulled out with a crochet hook, all the petals of the flowers should be raised, and the balls should be pressed into shape with the fingers.

To Launder Fine Clothes.—Before the clothes are put into the water, all rips and rents should be mended. Each garment should then be washed in warm water with pure white soap and rubbed as little and as carefully as possible. Squeezing will take out most of the dirt and will not strain or tear the cloth as rubbing and pounding does. The soap should be rinsed out thoroughly, and a few drops of blueing should be put into the last water. A very thin starch may be made by putting one heaping tablespoonful of powdered starch into a bowl, adding enough cold water to make a paste, and then pouring in slowly one liter of boiling water. The mixture should be stirred all the time and a very little blueing added. The garment should be dipped into this and wrung out. If the garment is white, it should be hung in the sunshine to dry and whiten; if it is colored, it should be dried in the shade.

An hour or longer before ironing, the clothes should be sprinkled and rolled in a towel. Care should be taken to have a perfectly clean iron. A little paraffin (wax candle) should be rubbed over it and it should be tried on a damp cloth before being used.

The sleeves of a dress should be ironed first. If there is no regular sleeve board available, better work can be done on the sleeves with a small iron than with a large one. After the sleeves, the body of the waist should be ironed, the tucks and plain parts being done first on the right side, the embroidery and lace, which must be ironed on the wrong side, being left until the last.

To iron the tucks nicely, we should start at the top, holding the garment firmly with the left hand at the bottom of the tucks in order to straighten them. Be very careful not to use an iron that is too hot.

LESSON XIII

HOW TO SET COLORS

(To be read and discussed in class)

Ordinarily it will be sufficient to wash colored material in a moderately warm suds, rinse it quickly, and hang it wrong side out to dry in the shade. A good grade of soap should always be used, but soap should never be rubbed upon the material and the goods should never be put to dry in the sunshine.

When colors are so dainty that they may fade with ordinary washing, it is possible to set them in various ways. The cloth may be soaked several hours in salt water, one tablespoonful of table salt to two liters of water being used for the purpose; or it may be soaked in an alum solution of one tablespoonful of powdered alum to four liters of water.

Delicate blues, lavenders, and pinks are best laundered by using turpentine in the wash water. The clothes should be washed as quickly as possible and placed at once to dry in the shade. Turpentine may be used in the proportion of two tablespoonfuls to four liters of water. Only the refined turpentine, perfectly clear and colorless, should be used.

EXERCISE 23

Mix and use three fluids for setting colors: First, salt solution, using a tablespoonful of salt to two liters of water; second, alum solution, using one tablespoonful of alum to four liters of water; third, turpentine solution, using two tablespoonfuls of turpentine to four liters of water. Cut four small pieces from the same piece of colored cloth. Wash one in water and one in each of the solutions. Dry and press these samples, and mount them neatly in the notebooks. Mark them as follows:

- **(*a*) Washed in clear water.**
- **(*b*) Soaked in salt solution before washing.**
- **(*c*) Soaked in alum solution before washing.**
- **(*d*) Washed in turpentine solution.**

EXERCISE 24

Have samples of many different kinds of dress material brought to school and examined carefully. Tell whether or not the goods will wash and wear well and give the reason for your answers. Tell by your own experience or observation which colors are more likely to be serviceable and what colors usually fade. Tell what care it is customary to take in washing colored goods to prevent their fading.

EXERCISE 25

Experiment with various kinds of new colored cloth, and after washing out in different solutions, write out the results of the experiment in the notebooks.

EXERCISE 26

Have a yard or more of new printed calico. If convenient, choose cloth like some faded skirt in the class. Divide this cloth among the class so that each girl may have half a dozen small pieces. Do the following work in a cup or small bowl.

Wash the first sample in the ordinary way, rubbing on cheap soap and laying it in the sunshine to dry.

Wash the second piece in a moderately warm suds, made of pure soap, rinse it quickly and hang it wrong side out to dry in the shade.

Allow the third to soak in salt and water. Before washing the fourth, soak in the alum solution; and wash the fifth as quickly as possible in the turpentine solution. Rub the sixth over with soap, boil in strong soapy water, and leave it in the sunshine, wetting it in the soap suds from time to time until the color has entirely disappeared. Mount the samples and enter the results of each process in the notebooks.

EXERCISE 27

Bring to school samples of printed goods such as are used for dress skirts. Discuss material suitable for school dresses. Consider cost, suitability, and durability. For school use, choose a material that will wash and wear well, because school clothes receive constant wear and must be kept clean by frequent washing.

EXERCISE 28

Name the different kinds of cloth in the room. Tell of what each is made, where it was made, and the market price. Tell whether or not it is worth the money and give the reason for your decision.

LESSON XIV

TAKING OUT STAINS

(To be read and discussed in class)

There are many things which discolor cloth and make it unsightly. It is a part of a housekeeper's duty to know how to remove such stains. Clothing and table cloths are frequently stained with ink. This makes an ugly stain, but one that usually is not difficult to remove. There are many things that will remove the stains made by ordinary writing fluids.

When ink stains or iron rust are to be removed, the piece of cloth should be saturated with lemon juice, and salt should be rubbed into it; it should then be placed in the sunshine. If necessary, this process may be repeated many times.

When ink stains are to be removed with carabao milk, the cloth should be put into the milk and washed at once. If the stain is obstinate, the cloth should be left in soak for four or five days, the milk being allowed to sour on it. It should then be rinsed in cold water, washed in warm suds, and dried in the sunshine. Both lemon juice and sour milk are suitable only for white goods, as they take out color.

Sometimes white clothes are scorched in ironing. The mark thus made may be removed by laying the garments in the sunshine until the mark fades. If the mark is obstinate, the garment should be rinsed in strong, warm soap suds and placed in the sunshine.

Mildew is a very obstinate stain, and when it has been on the cloth for some time, or has been ironed into the cloth, much difficulty is experienced in removing it without using something that rots the fabric. New and slight mildew stains may be removed by covering the stain with a paste made of chalk, soap, and water. The cloth should be left in the sunshine for a week or longer, if necessary, the paste being kept wet. Washing the cloth in a solution of chloride of lime will remove the stains; but this weakens the fabric.

Nearly every kind of fruit will stain cloth. Clothing, tablecloths, napkins, and handkerchiefs are often made unsightly by fruit stains. Some stains are so obstinate that it seems impossible to remove them, while others wash out quickly with the right treatment. Salt, lemon juice, and sunshine will remove many kinds of stains. Alcohol will remove many kinds of fruit stains. In fact, nearly all fruit stains will yield to this treatment.

Dissolve a teaspoonful of salts of lemon in a cup of water. Apply this to the stain and leave a moment, then pour boiling water through the cloth and place it in the sunshine until dry. Repeat several times, if necessary.

EXERCISE 29

(For home work)

Let each girl in the class be given a small piece of white cloth with an ink stain on it. Have her take out this stain, if possible, before the end of the week. She must not use lemon juice or milk, if she knows of anything else that will do the work. One week later let the pieces of cloth be brought to school and have each girl tell exactly what she did.

The girls who were not successful in the home work may do the work again in school, the girls who were successful showing the others exactly how to proceed so that all may be able to take out ink stains whenever the occasion arises.

(NOTE TO TEACHER.—Get five centavos' worth of salts of lemon at the drug store and experiment with it in class.)

EXERCISE 30

Copy the following into the notebooks and memorize carefully.

TO REMOVE STAINS.

Blood or Chocolate Stains.—Soak in cold water, rub well; then pour on boiling water.

Tea, Coffee, or Fruit Stains.—Pour on boiling water.

Wine Stains.—Sprinkle with salt as soon as the wine is spilled. Later pour on boiling water.

Grass Stains.—Wash in alcohol.

Machine Oil.—Rub with turpentine.

Paint.—Rub with turpentine or chloroform.

Iron Rust and Ink.—Rub with lemon juice and salt, and place in the sunshine.

LESSON XV

THINGS WORTH KNOWING

To Have Cool Drinking Water in School.—Wrap in a coarse heavy cloth the olla that contains the drinking water and keep the cloth wet. A rice sack is good for this purpose as it will hold plenty of moisture. Fill the jar at night and leave it in the open air. Keep it in a shady place during the day. Wash out the jar occasionally with lime water. This makes the drinking water taste enough better to pay for the little extra work it requires.

Banana-leaf Helps in the Kitchen.—If convenient, keep plenty of green banana leaves in the kitchen. When preparing to wash dishes, rub each dish with a section of leaf to remove grease and crumbs. When this is done, less water is required to wash dishes, less time to finish the dish washing, and therefore less fire. Then, too, the dishpans and dishcloths remain practically free from grease.

Banana leaves are good for polishing glasses and also for polishing the floor. When baking is done in a native clay oven, if the food is baked on banana leaves, the leaves may be made to fit the oven exactly, thus saving time and labor.

To Keep Pots and Pans Bright.—When pots and pans are used over an open fire, they soon become black and unsightly, unless they receive special attention. If the outside is rubbed with lard or soap before they are set upon the fire, and, if, when they are cleaned, they are first wiped with a banana leaf, the soot comes off like magic.

To Clean Sugar.—Sugar requires constant care, for otherwise it often becomes dirty and unfit for use. To clean sugar, put it over the fire with just water enough to dissolve it. While it is heating, the white of one egg should be mixed with one-half cupful of cold water and stirred into the boiling sirup only. When the sirup comes to a boil, it should be skimmed and strained. It should then be put back upon the fire in a clean dish and boiled and stirred constantly until a portion dropped into cold water becomes hard. Then pour it into a greased dish. When it is cold, it may be put into a cloth or mortar and pounded fine and sifted.

To Clean Fat that has been Used in Deep Frying.—Put the fat to be clarified into a saucepan; melt it and strain into a clean pan; add to every cupful of fat one-third of a cupful of boiling water and a bit of baking soda (an amount about equal in bulk to a kernel of corn); boil over a slow fire until the water evaporates and the fat is clean. Skim and strain through sinamay into a tin kettle. It is now ready to be used again. This process will clean the fat but will not remove flavor.

To Make Brown Sugar Sirup.—Two cups of brown sugar, one cup of water.

Put the sugar and water over the fire and stir while the sugar dissolves. Boil until it thickens (about five minutes). Do not stir after the sugar has dissolved.

This sirup may be eaten with rice or with bread. Sugar is not only a good food and pleasing to the taste, but it gives energy and force.

To Bleach Dish Cloths and Dusters.—Cotton cloths, when carelessly washed and rinsed, become grimy and yellow. Wash such cloths with plenty of soap, boil, then rinse them, and lay them on a clean grass plot. Leave them in the air and sunshine, wetting them occasionally as the cloths dry, until they are white and clean.

Uses of Petroleum.—Petroleum is used principally for lighting purposes and for fuel in stoves especially made for it. It will also rid the head of lice, if rubbed upon the scalp and hair, and will drive fleas from dogs, if a little is put into the water in which the dogs are washed. It will drive away ants and bedbugs and discourage white ants. It is good to clean any utensil that may be greasy or covered with sticky gum; as for example, a knife that has been used to cut nanca. For this purpose, the petroleum should be used undiluted.

Petroleum is also good to clean mirrors, marble topped tables, and glasses. For this purpose, add one tablespoonful to a cup of warm water, wash the articles in this solution, rinse twice in clear water, and wipe dry.

Petroleum will remove grease spots from finished wood and will polish hardwood floors. For this work it should be used undiluted and the wood rubbed dry with a clean soft cloth. (See page 38.)

Petroleum will help in the laundry work quite as much as soap. When clothes are very dirty, they should be put to soak in warm water in which there is a very little petroleum. Use 1 tablespoonful to 20 liters of water. When making starch, if 4 drops of oil are put into a liter of starch the iron will not stick and a better polish is secured.

Petroleum is one of the cheapest and most helpful aids in housework; but it is not a good medicine and should never be poured over sores, cuts, sprains, or bruises, or given internally.

Uses of Lime.—Lime is one of the best of disinfectants and should be used freely in every home. It should be sprinkled upon the ground under the house, especially in damp weather. It should also be sprinkled along ditches and drains and put into the vault occasionally. The kitchen should be whitened with lime-wash every year; for, besides making the room seem light and clean, lime kills mould and many disease germs.

A weak lime solution may be used in bleaching cloth; and lime water may be used as a medicine.

When lime is exposed to the air, it crumbles and loses much of its strength; but quicklime, that is, lime that is fresh and has not been exposed to the air, is one of the most powerful disinfectants. To use quicklime, mix it with cold water. The mixture will have the appearance of milk. In cases of cholera, dysentery, and other contagious intestinal diseases, quicklime solution poured over the patient's excreta will kill all germs.

If dry quicklime is scattered where rats and mice run, it will burn their feet and drive them away.

The flesh of fruits and vegetables which are to be cooked in sirup is often hardened by being previously soaked in a weak solution of lime water. This is particularly necessary when working with such soft-fleshed fruits as condol, cucumber, and papaya.

Some Uses of Table Salt.—Salt, used as a tooth powder, keeps the teeth white and the gums hard and rosy. Salt water is an excellent mouth wash.

For stings and bites of insects, apply dampened salt.

For earache, apply a bag of hot salt.

For sore throat, gargle with salt and water.

To kill weeds, sprinkle salt about their roots.

To remove iron rust and ink stains, use lemon juice and salt.

EXERCISE 31

(Smelling and tasting exercise)

Each girl should bring to school some substance that is in common use in the home, the teacher telling each member of the class beforehand what she is to bring, so that there may be a variety.

Wrap each girl's sample in clean white paper so that all the packages may look alike. Place the little packages on the classroom table after each has been numbered plainly.

Let each girl come to the table with pencil and paper, smell of the packages, and then write the number of the package and what she thinks it contains.

There may be:

- cloves
- cinnamon
- nutmeg
- white sugar
- brown sugar
- coffee
- tea
- anise
- chocolate
- tooth powder

EXERCISE 32

With the same packages on the classroom table, let four girls at a time be blindfolded, each one to be assisted by a girl who is not blindfolded. Each of these latter has pencil and paper and helps a blindfolded girl taste of the contents of each package, at the same time writing on her paper whatever the blindfolded girl thinks the package contains.

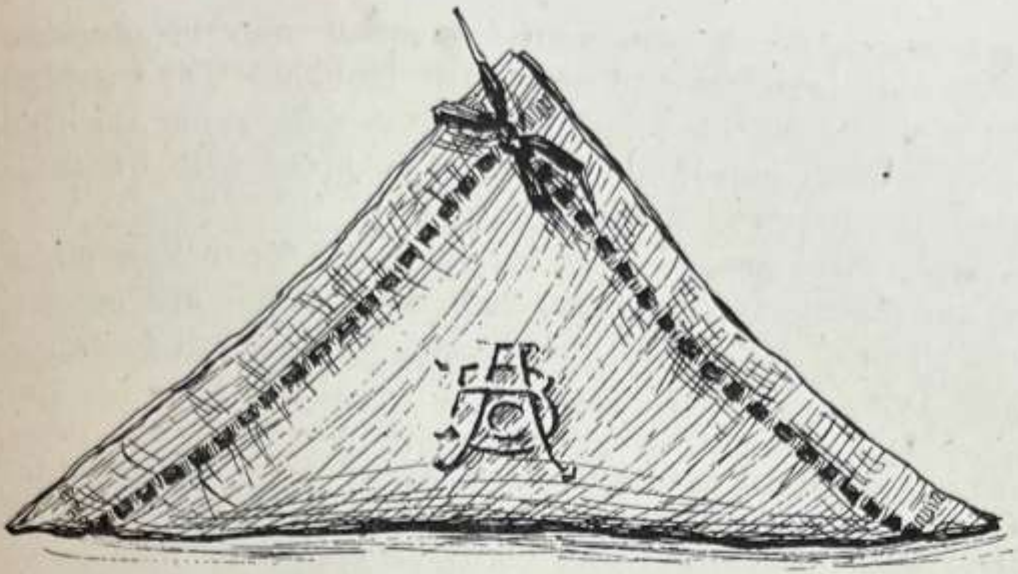
(NOTE.—It is well at this time to add other substances, such as salt, vinegar, quinine, etc., which the girls are not expecting.)

This exercise should be repeated from time to time, using the flavorings and seasonings in common use. It is more difficult than it may seem at first, and it affords much amusement as well as excellent instruction.

HOME WORK

Perfume, Rose Bags, Scent Bags, and Extracts.—Gather the petals of the ilang-ilang, sampaguita, orange blossoms, or any flower having a strong sweet smell. Put them into a large-mouthed bottle three-fourths full of olive oil. After twenty-four hours, turn them into a coarse cloth (a sinamay bag is good) and squeeze the oil from them. Put this oil back into the bottle and fill the bottle again with fresh petals. Repeat until the oil has the strong fragrance of the flowers. It takes many flowers, and should be repeated every other morning for a month. Then mix the oil with an equal quantity of pure rectified spirits (alcohol 95%). Shake for five minutes night and morning for two weeks. Then pour off the clear liquid. It is now ready to use.

Another way to utilize the sweet-scented flowers is to dry them and put them into tiny gauze bags made of pretty cloth. These scent bags are to be laid among clean clothes. When the little bags are made daintily, they make pretty Easter or birthday remembrances to give to friends. Dried leaves of rose geranium, rose leaves, and ilang-ilang blossoms are very satisfactory when used in this way.



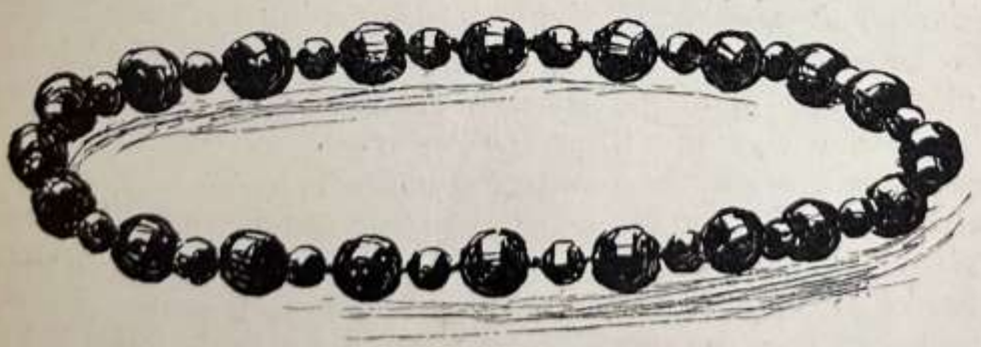
Scent bag.

Rose balls are not very beautiful but they retain the odor of the roses for a long time and the girls will enjoy making them. The first rosaries used by women were rose balls. Hence, the name "rosary."

RECIPE

Collect the petals of the roses, put them into a mortar, and mash to a pulp. Let them stand in the mortar over night, and the next day pound them several times during the day. Repeat this the third day. By this time they will have become a soft black mass. Make them into balls of the desired size and run a greased bamboo sliver through the center of each. Leave the balls until they are thoroughly dried and hardened. Then thread to make a fan chain, alternating each rose ball with a colored bead.

To make Orange or Lemon Flavoring Extract.—Puddings, custards, and various sweets are much improved by the addition of a little lemon or orange flavor. When oranges



Rosary made of rose balls.

and lemons are in season, the flavoring may be prepared with slight expense and very little trouble. The essential oil is in the outside rind. The white skin under the rind is very bitter and if, by chance, it is mixed with the outer rind, the flavor is spoiled.

When many oranges or lemons are used for making punch at any school entertainment, the rinds, if made into extract, will furnish the school with enough flavoring to last a long time.

RECIPE

Grate the yellow or yellowish green rinds, and put into a bottle, covering the pulp with 95% alcohol. Cork the bottle and let it stand three weeks. Strain and pour the liquid again over fresh grated peel, and let it stand another three weeks. It is then ready for use.

PART II

COOKING LESSONS AND RECIPES

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PART II

COOKING LESSONS AND RECIPES

GRADE FIVE

LESSON I

WHY WE EAT

(To be read and discussed in class)

Did you ever try to work when you were hungry? If so, you found it almost impossible to accomplish anything. Did you ever try to study when you were hungry? If so, you found it almost impossible to learn anything. Do you think it makes any difference whether or not we eat at regular hours; whether we spend five minutes or thirty in eating a meal; whether or not we eat once a day or five times a day, if we get the same amount of food; and whether or not we eat with our fingers when there are no visitors?

Indeed it makes a difference. All of these things have an influence upon our health, our appearance, and our ability to work and to enjoy life. Men and women have been studying about food and how it affects us, just as doctors have been studying about medicine.

We all wish to be well and strong. Day by day, our bodies wear out and day by day they have to be renewed. This renewing process comes about through the food we eat. Some kinds of food make muscle, some make fat and furnish us heat, and some make bone. Men of science have been studying for years to find out what the different foods are made of, and how each is used in the body. They have learned, for example, that meat, eggs, fish, mongos, and beans furnish nourishment to the body and renewed strength to the muscles and the nerves after they have worked hard; and that chocolate, corn, rice, and sugar give heat and make fat. Salt, lettuce, pechay, amargoso, radishes, and some other vegetables are good to improve the blood and help digestion. Mongos and corn give us more nourishment for the money invested than any other foods we can buy.

We must have plenty of wholesome food every day if we are to keep our bodies strong and well. The body must be in perfect order if the brain is to do its best work. The only way to have a strong body and a sound mind is to live rightly every day.

If a person is not well nourished, he is often sick. Everyone knows that in an epidemic of cholera or smallpox most of the deaths occur among the poor. Physicians have found by careful observation that bad feeding and tuberculosis often go together and that sometimes the patient will get well if he is simply given plenty of wholesome food, such as much milk and eggs.

There are thousands of persons in the Philippines who are underfed all the time, not so much because they are poor and cannot get any better food than they have, but because they do not know the value of food and do not feel that they need anything different from what they are getting. Every schoolgirl should learn the different kinds of food that the body requires, as well as the work that each kind of food does, so that she may buy the most nourishing food for her money and know how to cook and serve it to the best advantage of the family. It is very necessary for girls to know how to cook everyday food well—very much more necessary than for them to know how to prepare *dulces* and elaborate dishes for feast days. The everyday food builds up the body, but a little *dulce* simply pleases the palate.

Many people who are poorly nourished have plenty of food but do not use it rightly. They use food enough to live well, but they may have a fine feast to-day and little food for the rest of the week. We must eat three wholesome meals every day at regular hours, and eat slowly and chew the food well if we are to have strong, well-nourished bodies.

Everybody knows that babies must have the right kind of food, or they will sicken and die. Likewise, growing young people need the right kind of food, just as much as babies do. They suffer more than men and women do through improper feeding. It is not only that the elements are lacking to build strong bodies and brains, but the improper food eaten weakens the power of digestion so that what nourishment there is in the food is partially or wholly lost. We see all about us men and women who are weak and miserable all through life because they did not have the food they needed when they were growing boys and girls.

Our food has to do with our manners and morals, as well as with our health and appearance. Ill-nourished people are first to fall into shame and dishonor. "A hungry man is an angry man," and "Famine is the mother of crime and vice," are old proverbs full of truth.

LESSON II

THE MARKET

(To be read and discussed in class)

If housekeepers are to prepare food that not only tastes good and looks good but is also wholesome, the market should be as clean as a kitchen. Nearly all the food used in the home comes from the market. There are a few things like rice, corn, beans, mongos, dried fish, garlic, and onions that may be bought in quantity or kept in the home from one season to the next; and there are a few preserved foods like bagoong, sardines, and salmon that may be had at any time; but the major portion of our daily food is perishable, and must be bought each day in the market. Clearly, therefore, the sanitary condition of the market influences every home in the land.

The best markets are generally clean and sanitary, but in a good many towns the market is often dirty—sometimes disgustingly so. Here may be seen baskets of food sitting on the ground surrounded by dust and dirt, while pigs and dogs near-by go poking hungrily about for scraps of meat, dried blood, rotted vegetables, and fruit skins. In markets where the food is placed upon tables, the conditions are somewhat better; but oftentimes these tables are dirty and dusty, incrusted with dried blood and fish scales, or dark with the grime that has been collecting for years. Not only are the markets sometimes filthy, but the food is often left uncovered, is black with flies, and is fingered by customers with dirty hands who turn over bread and vegetables and feel of meat and fruit.

Exterior of model market.

When housekeepers realize the danger of eating food that has been thus exposed to filth, and when those who buy demand cleanliness, we shall get clean markets. As long as the public is satisfied with dirty food, little effort will be made to better the conditions; but when the housekeepers demand something better, they will get it. The people who buy and the people who sell must be educated to understand the importance of having clean markets; and here is another place where the influence of the schoolgirl of to-day is going to be felt in the future.

EXERCISE 1

(A visit to the market)

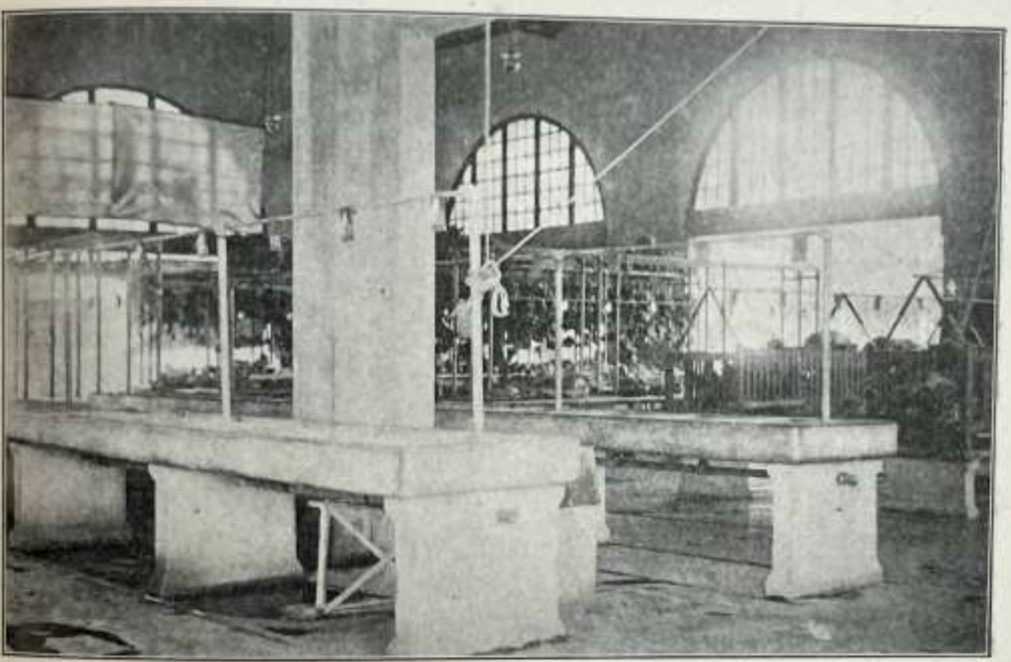
Before the next lesson, visit the market and be prepared to answer the following questions:

Locate the market.

What is done at the market?

Describe the stalls and other things seen there.

How is the market important to the people of the town?



Interior of model market.

Is there a place where those from whom you buy may wash their hands?

Are there screens over the meat and other food exposed for sale?

Why are screens necessary?

Are there receptacles provided for garbage?

Did you see customers handling food? Why should this be forbidden?

Is all the food placed a sufficient distance from the ground so that the air may circulate underneath?

Why should baskets containing fruits and vegetables not be placed upon the ground?

Did you see any animals running at large in the market?

Why should not goats, pigs, dogs and chickens be permitted to run about the market?

What objection is there to persons spitting in the market?

What fruits are for sale now?

What vegetables are for sale now? Are they sold by the kilo, ganta, in bunches, or singly? Which is the just way of measuring?

LESSON III

WAYS OF COOKING FOOD

(To be read and discussed in class)

One way to cook food is to *boil* it; that is, to cook it in boiling water. To boil, we must have water and a good kettle, and the fire must be kept going for a long time. We boil rice, greens, beans, camotes, and many other foods. This is a good and healthful way to cook, for boiling kills all animal life and mold in the food and makes it easy to digest.

Sometimes it is desirable to cook more slowly than is possible in boiling water. Then again some foods require only a limited amount of water, while others "burn" easily. In all such cases it is better to *steam* the food; that is, cook it in a receptacle placed over boiling water.

Another way to cook food is to *stew* it. Stewing is like boiling except that it is done over a slow fire, the food not being allowed to cook rapidly at any time. This is an excellent way to cook meat and some vegetables, such as dried beans and mongos. It makes the food very nourishing and leaves it tender and in good condition for the stomach to act upon it.

To *roast* food is to cook it over a bed of hot coals. Roasting is the best way to prepare meat, for in this way all its best flavors are brought out. We commonly roast pig, duck, and turkey. We also roast corn, sweet potatoes, and a few other vegetables.

Our food may be baked; that is, cooked in an oven. We bake bread, and cake, and sometimes meats and vegetables.

We sometimes *broil* fish and thin slices of meat. Broiling is like roasting, except that it is done in a very few minutes. We may place the meat directly over the fire, turning it often, or we may place it in a hot iron frying pan without water or lard. When we broil in a frying pan, the process is called *pan broiling.*

Toasting is similar to broiling, but we toast things that have no juice. For example, we toast bread, but we broil meat. In broiling meats, we must turn them often so as not to lose the juices. When we toast bread, we brown it and make it crisp.

To *fry* food is to cook it in deep hot fat. This is the worst way to prepare food, because it causes indigestion and does not kill the bacteria and eggs of insects that may be in the food. It is a quick and easy method of preparing food, but it should be used less frequently than any of the other methods.

Seasoning is something added to food to make it taste better. Salt, pepper, garlic, ginger, and vinegar are the ingredients most commonly used for seasoning.

There are certain foods that taste better when eaten hot and others that taste better served cold; and it is very essential that things that are to be served hot be served really hot—not just warm—and that things that are to be served cold be served as cold as possible.

EXERCISE 2

(Language review)

Learn to spell the following words and use them correctly in sentences.

simmering
boiling
steaming
toasting
stewing
roasting
baking
broiling
pan broiling
frying
seasoning
mixing

EXERCISE 3

How should corn be cooked? Tell how to prepare corn for the table. Tell how to prepare hominy.

How is fish commonly cooked? What is needed in order to cook it in this way? What foods do we commonly toast? Tell how to toast. Which is the cheapest way to cook? Give reasons for your answer.

Which has the better flavor, baked meat or roasted meat?

What cooking utensils are needed for stewing? In which of the methods of cooking do we use fat? In which do we use water? In which do we cook with dry heat?

LESSON IV

CLASSIFICATION OF FOODS

(To be read and discussed in class)

(NOTE.—Different members of the class should bring for this lesson eggs, sugar, starch, lard, ashes, and water; and these things should be before the class when this lesson is given.)

We eat many different kinds of food—meat, fish, bread, vegetables, fruits, etc.; but when the chemist analyzes them he finds that they are all composed of one or more of the five food principles. If we have the white of egg, some sugar and starch, lard, ashes, and water, we shall have a sample of each of the food principles used in the body. We need the proper proportion of each in our daily food, if the body is to be kept in good condition.

The white of egg represents protein. The work of this food principle is to build up and repair the body. We get protein from milk, meat, fish, beans, mongos, and many other things.

Sugar and starch represents the carbohydrates. The work of this food principle is to give us heat and energy. We get carbohydrates from fruit, grain, and vegetables.

Fats and oils do about the same work in our bodies as sugar and starch do. They give us heat and energy. We get fats from chocolate, nuts, fat meat, olives, and oil.

Ashes represent mineral matter. This food principle builds up and repairs our bones, nails, hair, and teeth. We get mineral matter from eggs, milk, many fresh vegetables, fruits, salt, and water.

Water has many uses in the body. It quenches the thirst, helps the blood to circulate, regulates the heat, removes waste matter, and does many other things which cannot be understood without a knowledge of physiology.

EXERCISE 4

(Exercises determining the value of food)

(a) Divide a sheet of paper into three parts. In the first division, write the names of common foods; in the second, what they give to help the body; and in the third, the name of the group to which they belong. For example:

COMMON FOODS	WHAT THEY GIVE TO HELP THE BODY	NAME OF GROUP
rice	heat, strength, fat	carbohydrates
fish	renewal of muscles and nerves	proteids
peanuts	heat and fat	fats
green vegetables	aid to digestion	mineral and salts

(b) Fold a sheet of paper into three equal parts. Write the word *animal* at the top of the first division, the word *vegetable* at the top of the second, and the word *mineral* at the top of the third. Let the teacher name the food and the girls write the name under the proper heading. Some of the girls should work at the blackboard.

Turn the paper over and write the words *carbohydrates*, *proteids*, and *fats* at the top of the divisions. Let the teacher name the foods as before and the girls write the names under the proper headings.

EXERCISE 5

Classify these foods according to the tables given in Exercise 4.

rice
beans
cheese
squash
chocolate
salt
sutangjon

bananas
milk
mongos
lard
fish
corn
camotes

pork
eggs
coffee
oranges
bread
beef
water

cake
custard
bagoong
eggplant
bean cake
vinegar
wine

(As a review from time to time, let the teacher write a list of names upon the blackboard, the girls being required to arrange the names in groups in a manner similar to the foregoing exercises.)

LESSON V

SUGGESTIONS ON HOW TO WORK

(To be read and discussed in class)

First of all we should learn to do exactly as we are told. We should work neatly, quietly, and quickly. We should not waste any time getting into our caps and aprons. We should wash our hands, clean our finger nails, and stand quietly by the table until the teacher is ready to begin. In four minutes after the class is called, all the girls should be ready to give undivided attention to the lesson.

Two girls should be housekeepers during each lesson and the different members of the class should act as such in turn. These girls should see that the fire is ready by the time it is needed, distribute and collect material and dishes, put the dishes to soak as soon as they are emptied, provide hot water for dish washing, scour the knives, and see to it that the dishes and hand towels are clean, and that the house is left tidy and ready for the next class.

We should always leave the house as neat as we find it. If the lesson is so long that there is no time to finish the dishes and put the house in order, this work should be attended to at recess or after school. The responsibility of keeping the house tidy should be upon the class, not upon the teacher.

If, in mixing, we remember to measure dry material first, then liquids, and lastly fats, we can work with one measuring cup or spoon.

EXERCISE 6

(Measuring)

Measure a cupful of flour, a teaspoonful of salt, a half teaspoonful, a quarter teaspoonful.

Find how many teaspoonfuls of sugar are contained in one tablespoonful.

Find how many tablespoonfuls of sugar are contained in one cupful.

Find how many tablespoonfuls of water it takes to fill a cup.

Find how many tablespoonfuls of water there are in a cupful and how many tablespoonfuls of sugar there are in a cupful.

Make this measurement with both sugar and water twice. How do you account for the difference?

(NOTE TO TEACHERS.—The various exercises, reading lessons, and discussions of this chapter are planned to occupy the time while the class is waiting for food to cook.

Exact measurements are necessary to success in cooking. ***All measures are taken level unless otherwise directed.***

A cup holding half a pint is the standard measuring cup. It holds 16 tablespoonfuls.

Sift or shake lightly all dry materials before measuring them.

To measure a cup of dry material, fill a cup with a spoon and then level it off with the back of a knife.

A cupful of liquid is all the cup will hold without running over.

To measure a spoonful of dry material, fill the spoon by dipping it into the dry material, lift it and level it off with a knife. To measure half a spoonful, divide the spoonful lengthwise with a knife. Divide a half spoonful crosswise to measure a quarter. A heaping spoonful is two times as much as a level spoonful.)

EXERCISE 7

(To boil water)

Prepare a clean kettle with close cover and a charcoal fire with no smoke. Strain the water through a clean white cloth into the kettle, and place it on the fire. When it is hot and about to boil, watch it carefully. The water is not boiling when it begins to steam. Boiling water bubbles and jumps about.

Where do bubbles first form? Where are they largest? What happens just before boiling begins? What is the cause of these bubbles? How do you know when water is boiling? Why do we need a covered kettle?

Water should be boiled fully twenty minutes in order to kill the germs which it contains. The boiled water should be kept in a covered jar, preferably one with a faucet. When vessels of various sorts are dipped into the water, there is much danger of contaminating it. Diseases of the bowels, such as cholera and dysentery, and fevers of various sorts are often caused by using impure water.

LESSON VI

RICE

(To be read and discussed in class)

Rice is the principal food of nearly one-third of all the people in the world. It is a wholesome food but it cannot be used as the only food day after day, because it does not make muscle and the body needs more fat and mineral matter than rice contains. People who eat rice need also meat, eggs, vegetables, milk, and much fruit. Those who live on rice without enough other food are likely to have scurvy or beriberi.

To be wholesome, rice must always be sorted over, carefully washed and thoroughly cooked. It is never a good food for babies, for it is nearly all starch. Rice must be chewed and mixed well with saliva before it can be digested. If babies eat rice before they have their teeth, it remains undigested in their stomachs and ferments, making them sick and irritable, and often killing them. Many babies die every year because those who care for them do not know this fact.

Rice may be put to cook either in cold water or in boiling water. It is most commonly put over the fire in cold water, but one needs to know both methods of preparing it. The secret of the proper cooking of rice lies in allowing just the right amount of water, in boiling just the right length of time, and in not breaking the grains in the cooking. Rice should be washed in three or four waters to make it perfectly free from dust and rice flour, and it should be boiled only until the grain is well softened; then the pot should be taken from the hottest part of the stove and the rice allowed to finish cooking by steaming.

EXERCISE 8

RECIPE—To Cook Rice[1]

Ingredients:

4 cupfuls boiling water.
1 teaspoonful salt.
1 cupful rice.

Method of Preparing.—Put the salt into the water and when the water is boiling, add gradually with a fork a cup of well washed rice. Lift it once or twice, shaking the kettle so that none of the kernels stick to the bottom. Let boil twenty minutes, drain if there is any extra water in the kettle, remove from the heat of the fire, and place where it will finish swelling without burning.

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[1] *All measures prescribed in the recipes appearing in this book are to be taken level full, unless otherwise specifically expressed.*

EXERCISE 9

Rice grows in most warm countries, but is supposed to have come originally from India. There are many kinds of rice. How many kinds can you name? Tell the peculiarity of each variety named. Tell the different ways of cooking rice. Make a list on the blackboard as the recipes are named. Each girl write her favorite recipe. Remember that in writing a recipe, one must tell exactly how much of each ingredient should be used and how the ingredients should be put together so that one who has never seen the dish described could make it look and taste right.

EXERCISE 10

When rice is cooked, the teacher and two girls chosen as cooks may prepare the following dishes before the class. In the first recipe, use as many tomatoes as there are girls in the class, and use enough rice to fill the tomatoes. In the second recipe, the amount of rice needed will depend upon the size of the dish in which the loaf is prepared.

RECIPE—Tomatoes Stuffed with Rice

Ingredients:

- large firm tomatoes.
- boiled rice.
- chopped onion.
- salt and pepper.
- thin slices of fat pork.

Method of Preparing.—Select large firm tomatoes. Wash carefully and cut off the tops; scoop out the insides, but do not peel. Fill the tomatoes with boiled rice to which has been added chopped onion and salt and pepper to taste. When the tomatoes are full, lay over each a thin slice of fat pork. Bake in the oven for half an hour.

RECIPE—Salmon Box

Ingredients:

Boiled rice.
Canned salmon.

Method of Preparing.—Line a dish with the boiled rice about half an inch thick. Add a can of salmon which has been broken into bits; heat all thoroughly either in the oven or over hot water. Turn unbroken into a platter and serve with white sauce around it.

RECIPE—White Sauce

Ingredients. To make one cupful of sauce, take—

1 tablespoonful pork fat,
1 tablespoonful flour,
1 cupful milk, and
Salt and pepper to taste.

Method of Preparing.—Put one tablespoonful of pork fat in a frying pan. When it is hot, add one tablespoonful of flour and mix. Then add slowly one cup of milk, stirring constantly. Season with salt and pepper and stir until it boils. Cook five minutes.

EXERCISE 11

(This excercise is the same as the preceding one, but is to be carried out individually.)

Let the girls do the work described in Exercise 10, using cups or cream cans in which to bake their individual loaves. The tomatoes may be baked in a large pan but each should be plainly marked with the owner's name. The paper may be attached by a bamboo sliver or a toothpick. The cooked food should be taken home.

While the food is cooking, study the different ways of preparing food. (Lesson III.)

LESSON VII

COOKING GREENS

(To be read and discussed in class)

Greens are leaves that are cooked for food, such as mustard, pechay, radish tops, and camote leaves. They have very little food value in themselves, but are good to eat because they fill the stomach, improve the blood, and help digestion.

When greens are prepared, the leaves should be washed clean, and care should be taken that no insect clings to them. They should be cooked until tender in slightly salted water, in which a generous piece of pork has been previously boiled for three quarters of an hour.

In cooking greens in class, it is a good plan for each girl to sort over and wash her own handful of greens. Then the greens may all be boiled in one kettle and when they are sufficiently cooked, they may be divided again among the class and each girl may prepare her part for the table. They should be drained thoroughly and cut across in every direction to make them more convenient for eating, and should be garnished and served with an acid dressing.

When pork is not cooked with greens, a French dressing should be poured over them. The olive oil often used is very nourishing.

RECIPE—French Dressing (individual recipe)

Ingredients:

1/12 teaspoonful salt.
A pinch of pepper.
1 tablespoonful olive oil.
2 teaspoonfuls vinegar.

Method of Preparing.—Put into a small bottle the salt, pepper, olive oil, and vinegar. Shake until thoroughly blended.

RECIPE—French Dressing (family recipe)

Ingredients:

½ teaspoonful salt.
¼ teaspoonful pepper.
3 tablespoonfuls olive oil.
1 tablespoonful vinegar.
A clove of garlic.

Method of Preparing.—Rub the salad bowl with the clove of bruised garlic, put the oil into the bowl, and stir the dry seasoning into it. Add the vinegar and stir vigorously until the dressing thickens slightly. A larger quantity made in the same proportions may be served in a bowl. This dressing may be used with any green salad.

RECIPE—Greens (for a class of 12 girls)

Ingredients:

Base	**6 bundles leaves of pechay, camote, radish, beets, or mustard.**
	½ kilo fresh pork.
Garnish	**6 large ripe fresh tomatoes.**
	1 large onion.
	3 hard-boiled eggs.
Dressing	**2 tablespoonfuls vinegar.**
	½ teaspoonful salt.
	¼ teaspoonful pepper.
	6 tablespoonfuls olive oil.

Method of Preparing.—Sort over the greens and be sure that no insects cling to them. Throw away wilted and decayed leaves and wash the part to be used in several waters until the water is clear. Boil the greens with pork, using only enough water to cover the leaves. Cook thirty minutes or until tender, drain thoroughly, and cut across in every direction to make convenient for eating. Place on a platter with the pork in the center. Garnish with slices of raw onion, ripe tomato, and hard-boiled eggs, and cover with French dressing.

LESSON VIII

SALAD MAKING

(To be read and discussed in class)

Salads are very important dishes, because they are healthful and economical and may be prepared attractively. They are particularly good in hot weather when we have little appetite, for they are cooling and the dressing served with them is of great food value. During an epidemic of cholera, we must remember that no food is to be eaten which is not thoroughly cooked. We should serve then only such salads and garnishes as are safe to eat.

Lettuce and pechay may be used as a bed for any salad; while fresh radish tops, endive, paco, mint leaves, or mustard leaves may be used as garnishes. They should be cut from the stem and separated, then freshened for some time in the coldest water to be had. They should be washed clean and then dried with a soft cloth. If the leaves are left wet, the dressing will run off.

There are three kinds of salads: First, those served uncooked with oil, salt and vinegar, and made of the wild or cultivated herbs such as paco, endive, mustard, pechay, lettuce, and various water plants; second, those made of uncooked fruits or vegetables, such as banana, pineapple, lukban, sincamas, cucumber, tomato, onion, and radish; and third, those made of cooked vegetables, meat, fish, eggs, etc.

When salads are made of green herbs, the herbs must be as fresh and crisp as possible. Salad of this kind should not be mixed with the dressing until the time for serving; otherwise the leaves will wilt and the salad will be spoiled.

The flavor of the salads made of cooked vegetables and meats is improved by letting them stand for some time in French dressing before serving. All salads should be served very cold.

When a salad is arranged for serving, the dish should be lined with greens and the salad placed thereon attractively and garnished as daintily and prettily as possible. Almost any fish, meat, fruits, or vegetables may be served as a salad.

EXERCISE 12

Give recipes used in your home for preparing katuray blossoms and greens of various kinds.

Make a list of all the plants commonly used for greens.

EXERCISE 13

Read and talk over the following recipes. Then choose and prepare (1) a salad made of herbs; (2) one made from uncooked fruits or vegetables; and (3) one made of cooked vegetables, fish, or meat.

RECIPE—Katuray Salad (individual)

Ingredients:

1 tablespoonful katuray blossoms (cooked).
½ orange or 2 tablespoonfuls pomelo.
6 peanuts.
French dressing.

Method of Preparing.—This is prepared much the same as greens. Use the blossoms of the katuray instead of leaves. Be careful to remove all the pollen, or the salad will be bitter. Put the white petals into boiling water and cook until tender, or about ten minutes. Garnish with sliced oranges and peanuts, or lay the cooked blossoms on a bed of pomelo that has been separated into its tiny segments. Serve with French dressing.

RECIPE—Bamboo Salad

Ingredients:

Base	2 cups shredded bamboo. ½ cup vinegar. ¼ teaspoonful salt. ⅛ teaspoonful pepper. 3 tablespoonfuls olive oil.
Garnish	1 large onion. 2 ripe tomatoes. 2 hard-boiled eggs.

Method of Preparing.—Select a young, tender bud of bamboo and shred it; cover with cold water and bring to a boil; drain and cover again with cold water; boil until tender; drain again. When it is cold add salt, pepper, vinegar and oil, and let stand until well seasoned. Garnish with sliced onion, ripe tomato, and hard-boiled eggs.

Bamboo pickle is made by pouring hot spiced vinegar over boiled bamboo, prepared as described above.

RECIPE—Tomato Jelly

Ingredients:

1 liter tomato sauce.
1 tablespoonful chopped onion.
1 teaspoonful salt.
⅛ teaspoonful pepper.
2 teaspoonfuls sugar.
2 laurel leaves.
1 cupful gulaman.
French dressing (see recipe for French dressing).

Method of Preparing.—Stew enough ripe tomatoes to make a liter of tomato sauce. Add to this salt, pepper, onion, a little sugar, and two laurel leaves. While it is boiling, stir into this one cupful of gulaman which has been washed and cut into small lengths. When the gulaman is dissolved, strain into a mold. When firm, slice; then garnish with lettuce and pour over all a French dressing. This jelly lends itself agreeably to many combinations of salad, being susceptible of countless variations. If cut into small cubes, it makes a pretty garnish for cold meats.

RECIPE—Lettuce Salad

The lettuce should be washed carefully and served with French dressing.

RECIPE—Pechay Salad

The leaves of the pechay when tender are very good as a substitute for lettuce with meat and vegetable salads. When older the leaves may be scalded and served with French dressing.

RECIPE—Pacó Salad

The new fronds of the pacó should be scalded and when cold served with French dressing. They are sometimes served with a French dressing without scalding and may be used as a garnish for any cold meat or salad.

RECIPE—Cucumber Salad (a)

Ingredients:
- 2 young cucumbers.
- ½ teaspoonful salt.
- ¼ teaspoonful pepper.
- 4 tablespoonfuls vinegar.

Method of Preparing.—Pare and slice the cucumbers very thin and soak them in cold water one hour. Then drain, sprinkle with salt and pepper, and cover with vinegar. Serve immediately.

RECIPE—Cucumber Salad (b)

(Method to use when the cucumbers are large and the seeds hard)

Ingredients:
- 1 large cucumber.
- French dressing.

Method of Preparing.—Cut off both ends of the cucumber and pare; then cut into thick sections. Cut each section around and around to form ribbons, using a small sharp knife. (Throw away the center with the hard seeds.) Leave in cold water half an hour; drain thoroughly, arrange in a bed of green, and pour French dressing over it.

RECIPE—Tomato and Pineapple Salad

Remove the skins from the tomatoes and cut a thin slice from the top of each; take out the seeds and some of the pulp. Sprinkle the inside with salt and let stand in a cool place thirty minutes and then drain. Fill the tomatoes with shredded pineapple and roasted peanuts broken into small pieces, using three parts of pineapple to one part of nuts. Mix with vinegar, oil, and salt; garnish with nuts and slices of tomatoes.

RECIPE—Pepper and Pomelo Salad

Select long, sweet, green peppers and cut them into halves lengthwise. Remove the seeds, and fill with pomelo pulp and peanut kernels broken into pieces. Allow five nut kernels to each pepper. Garnish and serve with French dressing.

(NOTE.—If the peppers are hot they must be scalded before they are filled.)

RECIPE—Tomato Salad

Remove the skins from the tomatoes, cut into slices, and serve with French dressing.

RECIPE—Salmon Salad

Arrange the salmon on crisp salad leaves of some sort, and garnish with rings cut from hard-boiled eggs and shredded onion. Serve with French dressing.

RECIPE—Tomato and Corn Salad

Pour boiling water over large smooth tomatoes and remove the skins. Set away to cool. When they are cold, remove the centers of the tomatoes with a spoon and fill the cavity with cold boiled corn cut from the cob and mixed with salt and pepper; arrange the tomatoes on a platter lined with pechay, or lettuce leaves. Serve with French dressing.

RECIPE—Fish Salad

Line the bottom of a dish with crisp salad leaves. Fill the center of the dish with cold boiled fish cut into pieces. Pour over it a French dressing. Garnish with shredded onion, sliced ripe tomatoes and rings of hard-boiled eggs.

RECIPE—Chicken Salad

Ingredients:

- 3 cupfuls chicken meat.
- 1 cupful boiled rice.
- ½ cupful minced onion.
- Salt and pepper to taste.
- 1 head of lettuce, or the same amount of some other green salad plants.

Method of Preparing.—Cut cold boiled chicken into small neat pieces; with three cupfuls of this meat, mix a cupful of cold boiled rice and a half cupful of minced onion. Sprinkle all with salt and pepper. Cover with dressing and toss until well mixed. Line the dish with crisp leaves, and fill with the chicken salad.

RECIPE—Dressing for Chicken Salads

Ingredients:

- Yolks of 4 eggs.
- 2 teaspoonfuls sugar.
- ¼ teaspoonful salt.
- A little pepper.
- 1 teaspoonful mustard.
- 1 teaspoonful flour.
- 2 tablespoonfuls vinegar.
- 2 tablespoonfuls water.
- 2 tablespoonfuls canned cream.

Method of Preparing.—Mix 2 tablespoonfuls of water with 1 tablespoonful of vinegar and bring to a boil.

Mix 1 teaspoonful of flour with a very little water until smooth, add the yolk of one raw egg, 2 heaping teaspoonfuls of sugar, ¼ teaspoonful salt, a little pepper, and stir it into the boiling vinegar and water. Cook three minutes stirring constantly.

Mix 3 yolks of hard-boiled eggs with ½ teaspoonful of vinegar. Add 1 teaspoonful of mustard, ½ tablespoonful of vinegar, and 2 tablespoonfuls undiluted canned cream. When the boiled mixtures are cold, mix all together.

RECIPE—Potato Salad

Ingredients:

- 3 cupfuls hot boiled potatoes.
- ½ cupful minced onion.
- ½ cup olive oil.
- 3 tablespoonfuls vinegar.
- 1 teaspoonful salt.
- 3 radishes.
- 3 ripe tomatoes.
- 1 sliced onion.

Method of Preparing.—Cut the boiled potatoes into cubes, pour over them the vinegar and oil mixed as a dressing, add the onion chopped fine, and the salt. Mix these ingredients thoroughly; heap the salad on a dish; and garnish with radishes, ripe tomatoes, and sliced onions.

LESSON IX

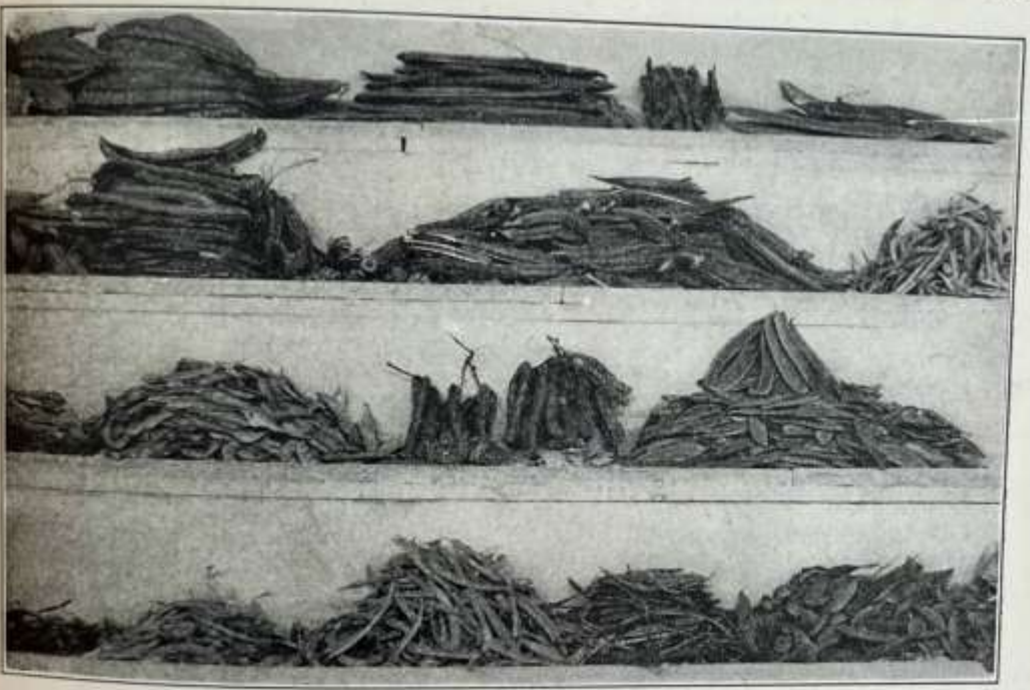
BEANS

(To be read and discussed in class)

Beans and mongos belong to the same family. They are the most nutritious of all vegetables and are such good muscle-building food that they are sometimes called "the poor man's beef." They are among the cheapest of foods and girls should learn many appetizing ways of preparing them and should use them often in their homes.

All vegetables are lacking in fat, so we usually cook with them a little pork, not simply because it makes them taste better but because the body requires it. Beans, lentils, and mongos, are hard to digest and are better eaten at the midday meal. Invalids and little children should never eat pork and beans. If eaten just before going to bed they are very apt to make even people who are strong and well have bad dreams.

There is a great variety of green beans to be had in the market. Their flavor is much improved by blanching; that is, having the water in which they are being cooked changed. To be blanched, they should be put into a kettle of boiling water and boiled for five minutes then drained in a basket or colander made by driving many holes in a tin pail. Cold water should then be poured over them. They should then be put again into boiling water and cooked until soft.



Various kinds of beans.

Dried beans should be soaked several hours or, still better, soaked over night and then stewed until they mash easily under light pressure. If, when the beans have been put into cold water and brought to a boil, they are drained and fresh boiling water is poured over them, the flavor is much improved.

A cheese is made of a kind of bean that grows in China and Japan. This cheese may be bought in most Filipino towns, is a very nourishing food, and is especially good for people who live largely upon rice.

(NOTE TO TEACHERS.—Let two girls bring samples of as many different kinds of beans as there are in the market or for sale in the stores, including green beans, dry beans, and mongos, and the bean-cheese sold by the Chinese.)

RECIPE—Stewed Dried Beans

Ingredients:

- 3 cups of beans.
- ⅛ kilo of pork, part fat and part lean.
- Pepper and salt to taste.

Method of Preparing.—Soak the beans over night and then drain off the water. Put them into a kettle with the pork; add enough cold water to cover and cook slowly for four or five hours, or until the beans are tender. Add salt and pepper to taste. If the water boils away, add more. Lentils and mongos may be cooked by this recipe.

RECIPE—Baked Beans

Ingredients:

- 2 cupfuls of dried beans.
- ⅛ kilo of pork.
- 1 tablespoonful of native brown sugar.
- ½ teaspoonful of mustard.
- ½ teaspoonful of salt.

Method of Preparing.—Soak the beans over night. In the morning, drain; cover with cold water and cook gently until the skins begin to break (about an hour). Put the pork into a small *olla,* then put in the beans. Put the seasoning into a cupful of boiling water. Pour this over the beans and add enough boiling water to cover them. Bake in a slow oven, such as is used for bread, for four or five hours. Add hot water from time to time to keep the beans moist. Keep the bean pot covered.

(NOTE TO TEACHERS.—Prepare the baked beans as directed and send to the town baker. He will bake the dish in his own oven for the time required for a few centavos.

This food when cooked, should be sent home for family criticism. While the beans are boiling, the class should be working upon the following chart and tables.)

EXERCISE 14

(Written work)

Make a list of all vegetables, roots, and tubers common in your vicinity.

Make a list of the salad plants such as mustard, pacó, and pechay.

Make a list of the fruit vegetables such as eggplant, tomato, and cucumber.

Make a list of the flowers that are used as vegetables, such as katuray, alibangbang, and squash blossoms.

EXERCISE 15

Make a large chart of twelve pages, one page for each month in the year, showing what food is in the market—vegetables, fruit, mushrooms, fish, etc., and the price of each. Add to this every week. This chart will be very instructive, if kept accurately.

EXERCISE 16

(More recipes for beans)

Read these recipes aloud carefully, afterwards discuss popular home recipes. Choose one string bean, and one shell bean recipe, and one recipe in which bean-cheese is used, and cook.

RECIPE—String Beans (a)

Ingredients:

- 1 kilo string beans.
- ½ kilo fresh pork.
- Salt and pepper to taste.
- 1 liter boiling water.

Method of Preparing.—Break the pods. They should be brittle and the beans should be very small. Wash, pull off the strings, and cut into one-inch pieces. Blanch. Cut pork into small pieces, and boil with the beans. Let most of the water boil away. Salt when nearly cooked. Beans should boil two hours. Serve without draining. Season with pepper.

RECIPE—String Beans (b)

Ingredients:

- 1 kilo native string beans (sitao).
- ½ kilo fresh pork.
- 3 liters of boiling water.
- Salt and pepper to taste.

Method of Preparing.—Wash and pull off the strings; tie them up in bundles of fifteen or twenty and blanch. Then drop them into a kettle with the piece of fat pork and boil until soft. Season with salt and pepper. The pork should cook half an hour before the beans are added.

RECIPE—Shelled Beans (Abas)

Ingredients:

- 2 cupfuls of shelled beans.
- 3 or 4 sprigs of green-mint.
- 2 tablespoonfuls of pork fat.
- 1 cupful hot milk.
- Salt and pepper to taste.

Method of Preparing.—Shell and wash the beans, then blanch them. Add a handful of mint leaves (*hierbabuena*) and boil until soft. Drain, and add salt and pepper, 2 tablespoonfuls of pork fat and a cupful of hot milk (coconut milk may be used). The sprigs of mint should be removed before the beans are sent to the table.

RECIPE—Shelled Beans (Sitao)

Ingredients:

2 cupfuls shelled beans.
¼ kilo fat pork.
Salt and pepper to taste.
1 teaspoonful sugar.
2 tablespoonfuls pork fat.

Method of Preparing.—Shell the beans, blanch them, and boil with the pork. When the beans are soft, take up the pork, drain the beans and put them into a frying pan with the hot pork fat. Add salt and pepper to taste and a teaspoonful of sugar. Cook five minutes and serve.

(NOTE.—In all recipes that call for pork, the meat must be thoroughly cooked. When buying pork, see that the lean meat is pink and the fat pure white and solid and that the skin looks white and clean.)

RECIPE—Mongo Gruel for the Sick or for Children

Ingredients:

2 tablespoonfuls mongo meal.
2 cups boiling water.
1 cup milk.
1 teaspoonful flour.
Salt and pepper to taste.

Method of Preparing.—Wash the mongos and dry them thoroughly, then grind in the coffee mill to make a meal. Stir enough of this meal into boiling water to make gruel of the desired thickness. Boil forty-five minutes. Add milk and flour to thicken slightly after it is sufficiently cooked. Salt and pepper to taste.

RECIPE—Mongo Stew

Ingredients:

3 cups of mongos.
4 cups of cold water.
6 bananas.
4 camotes.
1 cup of rice.
1 tablespoonful of salt.

Method of Preparing.—Brown the mongos, and grind very fine. Put this meal into the water and bring it to a boil. Add the bananas and camotes cut into small pieces; then add the rice, and salt. Boil one hour.

RECIPE—Mongo Sprouts

Ingredients:

- **3 cups sprouted mongos.**
- **½ kilo fresh pork.**
- **1 large onion.**
- **Salt and pepper to taste.**

Method of Preparing.—Wet a heavy towel and spread it on a table. Put the ends of the towel into water so that the towel will remain damp, sprinkle 3 cupfuls of dried mongos evenly over the towel, and spread a second damp towel over the seeds. Leave until the sprouts are about an inch long. Sprouted mongos may often be bought ready for use in the market.

Boil the mongo sprouts until the mongos are tender, then drain. Fry the pork. Take up the meat, and in the hot fat fry an onion or some garlic until it is soft but not crisp. Add the boiled mongo sprouts and heat thoroughly. Add salt and pepper to taste, and serve with tomato.

EXERCISE 17

Write your favorite home recipes for cooking mongos.

EXERCISE 18

Select recipes from the above exercise, and prepare mongos in three different ways.

(NOTE TO TEACHERS.—Divide the class into three sections for this exercise and let each section use a different recipe.)

EXERCISE 19

Make a list of the food necessary for a family of eight—three grown people and five children—for one day. Estimate the cost. Tell how many meals will be served, at what hours they will be served, and what food will be served at each meal.

EXERCISE 20

Allowing one peso to feed this same family for a day, tell how you would use the money to the best advantage.

(NOTE TO TEACHERS.—These papers should be written in class, then read, and discussed. Collect, and then have a second paper written at home and handed in at the beginning of the next lesson.)

LESSON X

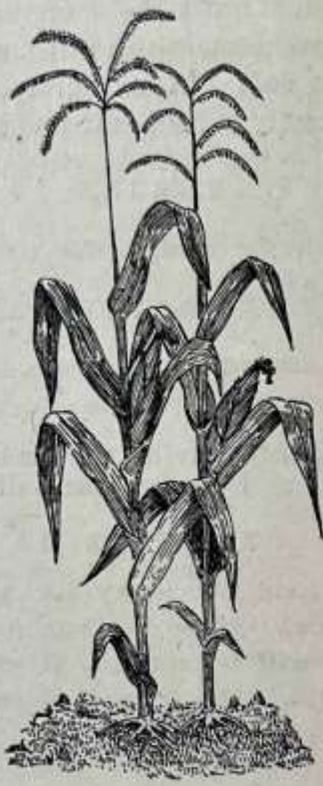
CORN

(To be read and discussed in class)

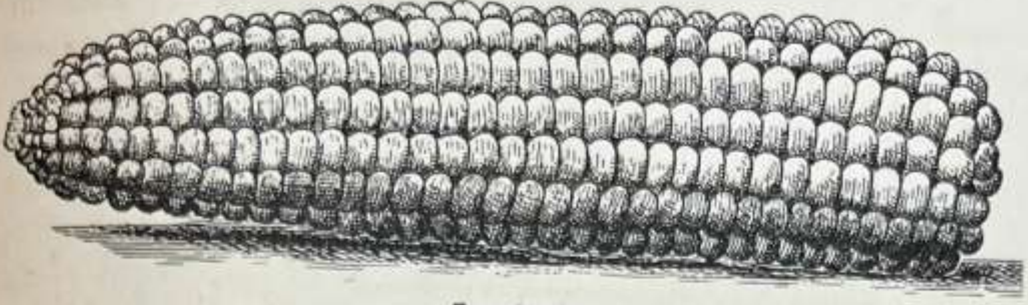
Corn has more real food value than most green vegetables. It is very rich in fats and, as a food, stands between rice and bread in nutritive value.

Green corn should always be cooked as soon as possible after it is picked, for it soon loses its sweetness and decays very quickly.

Ground corn is called *Indian meal.* This meal is used for making mush and corn bread. It is a very important article of food for people living in the United States, Mexico, Ireland, and Italy, and should have a very important place in the diet of the Filipino people. Hulled corn is wholesome and nutritious and should be used more commonly in Filipino homes. In whatever form corn is served, it should always be thoroughly cooked.


Corn plant.

Corn starch is another common corn product. It is a glistening white powder finer than flour, and is practically pure starch. It is prepared for commerce by special processes. It is commonly used for thickening gravies and sauces, and in various other ways, especially in making desserts and in invalid cookery, as it is palatable and easily digested. When boiling water or milk is poured over starch, it thickens instantly. Care must be taken to cook starch



Ear of corn.

thoroughly or it has a crude raw taste which detracts much from the palatability of any dish in which it is used.

Read the following recipes aloud carefully and discuss popular home recipes in which corn is used. Choose one green corn recipe, one dried corn, and one corn meal recipe, and cook.

RECIPE—Corn Boiled in the Husks

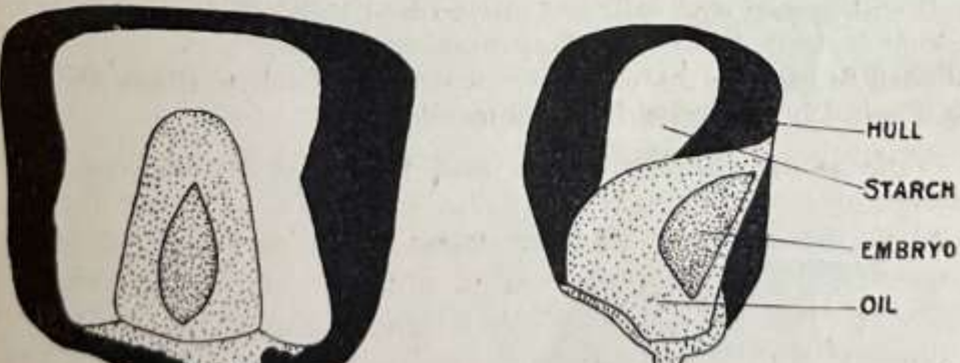
Remove the green outside husks, but leave the cob well-covered with the inner husk. Put the corn into a kettle of boiling water, and boil rapidly after it begins to boil, say about ten minutes. When it is done, drain, and serve in the husks.

RECIPE—Stewed Corn

Ingredients:

- 2 cupfuls of raw corn.
- 1 cupful boiling salted water.
- 1 cupful hot milk (coconut milk preferred).
- 1 tablespoonful pork fat.
- 1 teaspoonful flour.
- Salt and pepper to taste.

Method of Preparing.—Cut the corn from the cob with a sharp knife; put it over the fire with just enough boiling salted water to



Flatwise section. Edgewise longitudinal section.

Sections of corn kernels.

cover it. Stew gently ten minutes. Add the hot milk. Cook ten minutes longer. Mix the flour and pork fat and stir in. Cook a minute longer. Season with pepper.

RECIPE—Succotash

Ingredients:

- 2 cupfuls raw corn.
- 2 cupfuls shelled beans (abas preferred).
- 3 cupfuls boiling salted water.
- 1 cupful boiling milk (coconut milk preferred).
- 1 tablespoonful of pork fat.
- Salt and pepper to taste.

Method of Preparing.—Cut the corn from the cob and put it into a saucepan with the beans and enough boiling water to cover them both. Boil until the vegetables are tender. Without draining, add ½ cup of canned milk or drain and add one cupful hot coconut milk. Cook ten minutes, then stir in the pork fat and add salt and pepper to taste.

RECIPE—Hasty Pudding

Ingredients:

- 1 cup corn meal.
- 1 teaspoonful salt.
- 4½ cups boiling water.

Method of Preparing.—Have the water salted and boiling. Stir in the meal very slowly, stirring constantly. Cook for twenty minutes.

> (NOTE.—Corn-meal mush is more wholesome if it is placed over hot water and cooked for three hours. In a hot country, we do not have fire to cook it so long, but we might cook it in a fireless cooker.)

When the hasty pudding has cooked twenty minutes, serve some of it hot with milk and some with brown sugar sirup. Put some of it into a bowl, cover it, and let it cool. Then when ready for use, cut it into slices half an inch thick, and fry in pork fat. Serve with meat or sirup.

Meat, chicken, or crab meat may be cut into small pieces, seasoned well with pepper and salt, and stirred into hasty pudding just before taking it from the fire. When prepared in this way, it should be allowed to cool and harden, after which it should be sliced and fried as directed in the recipe for fried mush.

This is an excellent dish and makes a little meat go a long way.

RECIPE—Hulled Corn

Ingredients:

- 2 cupfuls wood ashes.
- 2 liters cold water.
- 2 liters dry corn.

Method of Preparing.—Put 2 cupfuls of guava wood ashes or other hardwood ashes into two liters of cold water; boil half an hour.

Leave until the ashes settle to the bottom. Pour off the clear water (it should feel a little slippery), put in 2 liters of dry corn, add more water so that the corn is well covered, and boil until the hulls begin to come off. Drain and wash the corn in cold water, rub thoroughly with the hands to remove the hulls. Wash until there is no taste of lye, then put into clear water and boil until tender.

Hulled corn may be served in many different ways:

(*a*) Cold with shredded coconut and salt.
(*b*) Cold with shredded coconut and sugar.
(*c*) Cold with cold milk.
(*d*) Heated in a little water and served with hot milk and sugar.
(*e*) Heated in meat gravy.
(*f*) Fried in a very little pork fat.

RECIPE—Parched Corn Gruel

Ingredients:

2 tablespoonfuls parched corn.
1½ cups milk.
Salt.

Method of Preparing.—Put the dried corn into an iron frying pan and parch it brown as green coffee is commonly prepared. When the corn is well parched, pound or grind it, and sift the meal.

Use 2 tablespoonfuls of the parched corn meal to a cup and a half of milk. Heat one cup of milk.

Blend the meal with the half cup of cold milk and stir it into the boiling milk. Boil for ten minutes, watching and stirring so that the milk may not boil over or burn. Then cook in a double boiler (made by setting a tin into a kettle of boiling water) for thirty minutes. Just before serving, add the salt.

This is an excellent food for people suffering from bowel troubles.

RECIPE—Hoe Cakes

Ingredients:

½ liter corn meal.
½ teaspoonful salt.
Boiling water.
Cold water.

Method of Preparing.—Put the meal into a bowl, add the salt, and pour boiling water over it (just sufficient to moisten the meal). Let it stand ten minutes. Then add cold water until the batter will drop nicely from a spoon. Bake on a well-greased iron frying pan.

(SUGGESTION.—Slice fat pork or bacon thin and fry crisp; then serve the hoe cakes with a slice of meat on top of each.)

RECIPE—Float

Ingredients:
- 1 cup sugar.
- 3 eggs.
- 3 cups milk.
- 2 even tablespoonfuls corn starch.
- 1 teaspoonful vanilla.

Method of Preparing.—Mix the eggs and sugar and pour over them the milk, then stir in the corn starch and put the mixture into a double boiler and stir until the mixture thickens; then cook ten minutes longer. Flavor with vanilla. Serve cold.

LESSON XI

OTHER COMMON VEGETABLES

EXERCISE 21

The eggplant has little real food value, but it gives variety to our food. It contains much valuable mineral salt, helps to fill the stomach, and is one of the few vegetables found in the market throughout the year. It appears on the home table more frequently, perhaps, than any other vegetable. When poorly cooked it is an abomination, but when cooked properly it is most appetizing. Eggplant, when dipped in egg and crumbs and fried, is more nutritious than when boiled, because the egg and crumbs afford additional nourishment. Served with a dressing of oil and vinegar, it is a better food than when served with vinegar and salt only.

Read carefully and discuss the following recipes and prepare the vegetables from time to time throughout the year.

RECIPE—Fried Eggplant (a)

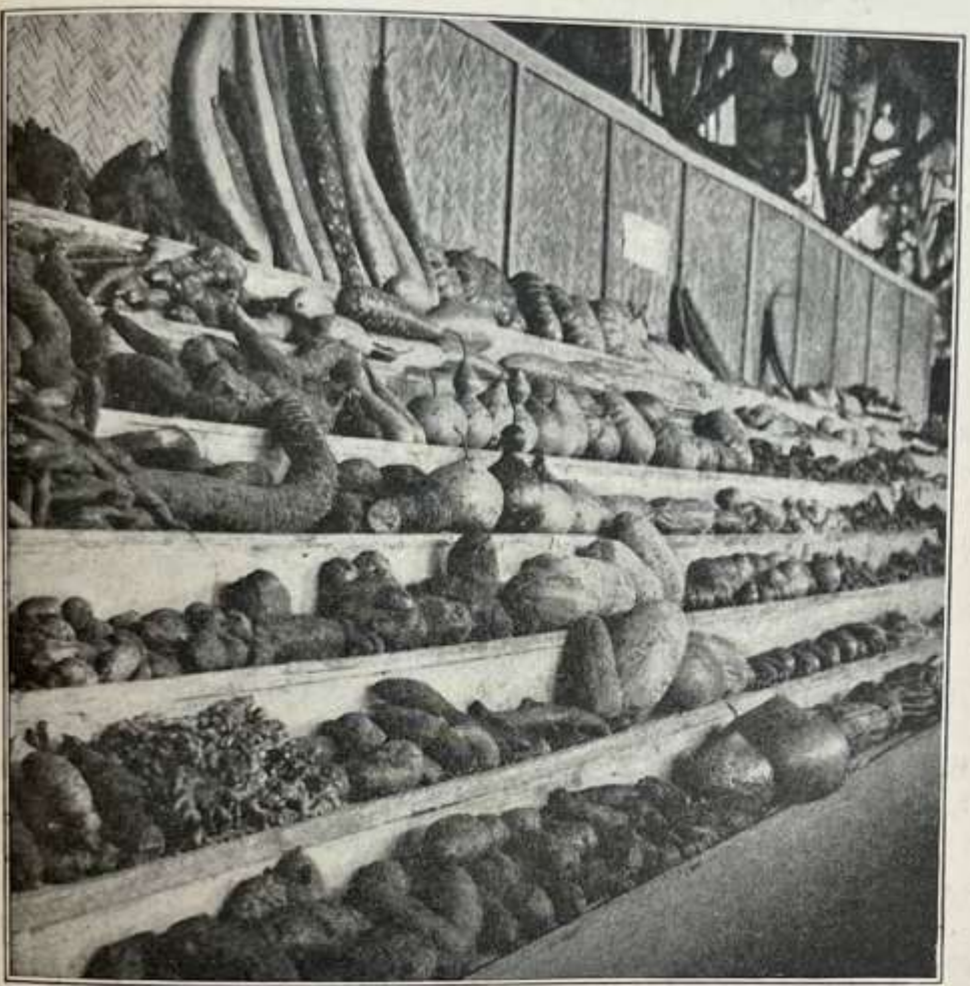
Ingredients:
- 1 eggplant.
- 2 tablespoonfuls flour.
- 3 tablespoonfuls lard.
- Salt and pepper to taste.

Method of Preparing.—Without peeling the eggplant, cut it into rather thin slices. Lay it in cold salted water for half an hour. Drain, dip each slice in dry flour, and fry it in hot lard. Sprinkle each slice with pepper and salt, and drain on a clean cloth.

RECIPE—Fried Eggplant (b)

Ingredients:
- 1 eggplant.
- ½ cup toasted bread crumbs.
- 1 egg.
- ¾ cup lard.
- Salt and pepper to taste.

Method of Preparing.—Peel the eggplant and cut it into slices half an inch thick. Lay it in cold salted water for half an hour. Wipe each slice dry. Dip in beaten egg and then in bread crumbs and fry in deep hot fat. Season with salt and pepper. If the eggplant is tender, it need not be peeled.



Philippine garden vegetables.

RECIPE—Mashed Eggplant

Ingredients:

- **1 large eggplant.**
- **1 liter boiling water.**
- **1 egg.**
- **Vinegar, salt, and pepper to taste.**

Method of Preparing.—Wash a large eggplant and without peeling it, drop it into boiling water and cook it until soft. Drain, press out as much water as possible, and mash as potatoes are mashed. Season with salt, pepper, and vinegar to taste. Reheat. Beat an egg until light and stir it into the hot mashed eggplant.

RECIPE—Stuffed Eggplant

Ingredients:

1 large eggplant.
1 cupful boiled lean pork chopped fine.
1 tablespoonful chopped onion, or a little garlic.
½ cupful bread crumbs.
1 tablespoonful pork fat.
Salt and pepper to taste.
2 tablespoonfuls meat broth.
3 cupfuls of boiling water.
1 tablespoonful of flour.

Method of Preparing.—Wash a large eggplant and cook it in boiling salted water for ten minutes. Let it get cold, then cut it in halves lengthwise and scrape out the center, leaving the sides of the vegetable half an inch thick. Chop half of the pulp fine. Add to it the lean pork, the chopped onion, half of the bread crumbs, the tablespoonful of pork fat, and salt and pepper to taste. Mix well and add enough of the broth in which the meat has boiled to make a stiff paste. Fill the halves of the eggplant with this mixture. When they are full and rounded, cover the tops with bread crumbs and put them into a frying pan. Pour 3 cupfuls of hot water or broth over them. Cook one hour. Remove the eggplant to a hot platter. Thicken the gravy left in the pan with a little flour mixed with cold water. Pour this sauce about the eggplant.

RECIPE—Eggplant Stuffed with Rice

Ingredients:

1 large eggplant.
1 cupful boiled rice.
1 cupful chopped ripe tomatoes.
1 sweet pepper chopped fine.
1 tablespoonful chopped onion or a little garlic.
Salt and pepper to taste.

Method of Preparing.—Prepare the eggplant as in the preceding recipe. Mix together half the chopped pulp of the eggplant, the rice, the tomatoes, and the pepper chopped fine. Season with salt and chopped onion. Fill the eggplant with this mixture and fasten the two halves together with a bamboo skewer and fry; when cooked, removed the skewer and serve hot.

EXERCISE 22

Tell other ways in which eggplant is commonly prepared. Write your favorite eggplant recipe.

Peppers give us little or no nourishment, but they are of value because they give flavor and variety to our food. They are good in salads and in almost any meat and rice mixture. When preparing peppers, always discard the seeds and white inner fiber. A sweet pepper may be mixed with any green salad; and one boiled sweet pepper chopped and cut up with three hard-boiled eggs makes good filling for sandwiches.

Read the following recipes aloud carefully and discuss popular home recipes.

RECIPE—Peppers with Rice

Ingredients:

- 6 peppers.
- 2 cupfuls boiled rice.
- 1 large onion.
- 1 cupful meat broth.
- Salt.

Method of Preparing.—Open the peppers and take out the seeds and tough white fiber. Cut into strips crosswise, and lay in cold salted water half an hour. Drain and chop rather coarsely and fry with a chopped onion. Add to this broth and stir into it boiled rice. Salt. Cover for five minutes and serve. The proportion of peppers to rice may vary according to individual taste.

RECIPE—Peppers and Potatoes

Ingredients:

- 6 cold boiled potatoes.
- 1 large onion.
- 3 sweet green peppers.
- 2 tablespoonfuls pork fat.
- ½ teaspoonful salt.

Method of Preparing.—Chop together the cold boiled potatoes, the onion, and the peppers. Heat the pork fat, add the chopped vegetables and salt. Stir and cook over a moderate fire ten or fifteen minutes. Then brown and fold over like an omelet and serve hot.

RECIPE—Peppers Ragout

Ingredients:

- ½ kilo of pork.
- 1 tablespoonful pork fat.
- 4 tablespoonfuls flour.
- ½ teaspoonful salt.
- 1 large onion, or garlic to taste.
- 2 laurel leaves.
- 1½ cups boiling water.
- 2 large ripe tomatoes.
- 6 green peppers.

Method of Preparing.—Cut the lean pork into small cubes and roll them in flour. Put the pork fat into a frying pan and when hot add the floured meat and brown. Take up the meat and stir into the fat in the frying pan one tablespoonful of flour. When smooth add the salt, the sliced onion, the laurel leaves, the hot water, and the chopped tomatoes. Return the meat. Stir gently until boiling, then add the fresh peppers cut into strips, all seeds and ribs having been carefully discarded. Cover and let simmer an hour and a half, or until the meat is thoroughly cooked.

RECIPE—Fried Peppers

Ingredients:
- 10 sweet peppers.
- 2 tablespoonfuls pork fat.
- Salt.

Method of Preparing.—Open the peppers and take out the seeds and tough white fiber. Cut into strips crosswise. Lay the peppers in cold salted water one-half hour, then fry in a little lard. When cooked lay them about pork steak or chops and serve.

RECIPE—Boiled Squash

Ingredients:
- ½ kilo squash.
- ½ teaspoonful salt.
- 2 tablespoonfuls pork fat.
- ¼ teaspoonful pepper.

Method of Preparing.—Wash a section of squash, cut it into pieces, pare and remove the seeds, place in a basket, and put the basket into boiling salted water. Cook until tender (about twenty minutes). Remove the basket, drain thoroughly, mash, season with salt and pepper, and add the pork fat.

RECIPE—Fried Squash

Ingredients:
- ¼ kilo squash.
- 1 egg.
- 1 cupful bread crumbs.
- 1 cupful lard.
- Salt and pepper.

Method of Preparing.—Peel and slice the squash and boil for five minutes. Remove from the fire and drop the slices into cold water. Wipe dry, dip into beaten egg, then roll them in toasted bread crumbs and fry in deep hot lard. Drain and sprinkle with salt and pepper.

RECIPE—Squash Custard

Ingredients:
- ½ kilo of squash.
- 2 tablespoonfuls pork fat.
- ½ teaspoonful salt.
- 2 cupfuls coconut milk.
- ½ teaspoonful grated nutmegs, and ½ teaspoonful cinnamon.
- ½ teaspoonful powdered ginger.
- ¾ cup brown sugar.
- 4 eggs.

Method of Preparing.—Peel and slice the squash. Cut it into small pieces and boil until soft. Drain, mash fine, and press through a sieve or basket so there may be no lumps. Measure the squash and add ½ teaspoonful of salt to each cupful of mashed squash. Leave until cold. When cold, take 2 cupfuls of squash and 2 cupfuls of coconut or other milk, ½ teaspoonful grated nutmeg, ½ teaspoonful powdered cinnamon, and ½ teaspoonful powdered ginger; mix well and sweeten with brown sugar.

Beat 4 eggs until light and add them to the squash mixture. Pour all into a deep pan and set this pan into a *carajay* of boiling water; cover and cook until the custard is set like *flan*.

EXERCISE 23

From a good yellow squash, prepare boiled squash, fried squash, and squash custard.

EXERCISE 24

Tell other squash recipes which are in common use in your homes and afterwards copy the favorite recipes into your notebooks.

(NOTE TO TEACHERS.—The individual cook books should be kept with the greatest care so that they may be depended upon when the girls use them at home. The recipes in these books will be the recipes that the girls get from one another and additional recipes which the teachers may give.

Cooking lessons should give to pupils ideas and experience of practical value. Girls should be urged to get popular recipes from the best housekeepers in the community.)

RECIPE—Amargoso

Ingredients:
- 2 cupfuls amargoso.
- 1 tablespoonful salt.
- ¼ kilo fat pork.
- 1 large onion or a garlic.
- 3 cupfuls boiling water.
- Salt and pepper to taste.
- 2 eggs.

Method of Preparing.—Cut the amargoso into thin slices and cover them with salt; rub and squeeze to take out the bitter juice; wash and soak in cold water for half an hour or longer.

Fry the fat pork. When the meat is nearly cooked, fry a large onion or a garlic with the meat. When this vegetable is clear and soft, put the amargoso with it into the frying pan and pour over all enough boiling water to cover the vegetables. Boil until tender. Season with salt and pepper and just before taking from the fire add 2 well-beaten eggs. Cook a moment longer and serve hot.

RECIPE—Amargoso with Shrimp

Ingredients:
- 2 cupfuls amargoso.
- 1 cupful peeled shrimp.
- 2 tablespoonfuls lard.

Method of Preparing.—Cut the amargoso into thin slices and put them into a kettle of cold water. Bring to a boil and drain. Repeat twice. In the third water, cook until the vegetable is tender. While the amargoso is boiling, pour boiling water over the shrimp, cover and leave until cool enough to handle. Remove the shells. Put the shrimp into a frying pan with the hot fat and cook two minutes.

Mix the shrimp and vegetables and serve hot. The shrimp may be used in larger proportion if so desired.

(NOTE.—Green papaya, bamboo, or pechay may be prepared with shrimp in the same way. The leaves and stems of the pechay should be cut up together.

Green papaya, patola, bamboo, and calabaza blanca may each be stewed until tender and then covered with a thin white sauce and seasoned to taste with salt and pepper.)

RECIPE—Boiled Okra

Ingredients:

4 cupfuls sliced okra.
2 cupfuls cold water.
1 teaspoonful salt.
1 tablespoonful pork fat.
1 tablespoonful vinegar.
Pepper to taste.

Method of Preparing.—Wash the okra and cut into slices about half an inch thick; add the water and salt. Cover the kettle and simmer gently for thirty minutes or until tender. Season with pork fat, vinegar, and pepper.

RECIPE—Gumbo

Ingredients:

4 cupfuls sliced okra.
1 large onion or garlic to taste.
2 liters chicken broth or hot water.
3 ripe tomatoes.
2 cupfuls minced chicken or the same quantity of shrimp or oysters.
Salt and pepper to taste.

Method of Preparing.—Gumbo may be made with chicken, shrimp, or oysters. Fry the minced onion or garlic until brown. Add to it 4 cupfuls of sliced okra and fry well, stirring all the time to prevent burning. If chicken is used, it must be previously stewed tender and the meat minced. Pour over the okra 2 liters of chicken broth and boil down to one liter. If using oysters or shrimp, substitute boiling water in place of the chicken broth. When the soup has boiled sufficiently, add the meat and 3 ripe tomatoes chopped fine. Season to taste with salt and pepper and serve with boiled rice.

RECIPE—Fried Okra

Ingredients:

10 pods of okra.
1 egg.
1 cupful crumbs made of pan de caña.
Salt and pepper.

Method of Preparing.—Parboil whole pods of tender okra for ten minutes; remove from water and allow to cool. When cold, season with pepper and salt; dip in crumbs, then in beaten egg, and again in crumbs; and brown quickly on both sides in hot fat. Serve hot.

RECIPE—Turnips

Ingredients:
3 cupfuls sliced turnips.
2 tablespoonfuls pork fat.
Salt and pepper to taste.

Method of Preparing.—Wash and pare the turnips, cut them into small pieces and cook in boiling salted water until tender. This will be about thirty minutes. Drain very dry, mash thoroughly, and season to taste with salt and pepper. Allow a tablespoonful of pork fat to a cupful of mashed turnips. Reheat the mashed turnips in the pork fat and serve hot.

RECIPE—Boiled Carrots

Wash and scrape the carrots, cut them in halves lengthwise, and cook in boiling salted water forty-five minutes, or until soft. Drain, cut in slices, and pour over them a white sauce.

RECIPE—Boiled Beets

Wash, but be careful not to break the skins. Cook in boiling water until soft. This will take from one to four hours. Drain and put into cold water and rub the skins off. Cut in slices, sprinkle with salt, and cover with vinegar.

EXERCISE 25

Write home recipes for preparing common vegetables; read and discuss them in class. Compare them with recipes given here. Which is the most popular recipe? Which are the five most popular recipes?

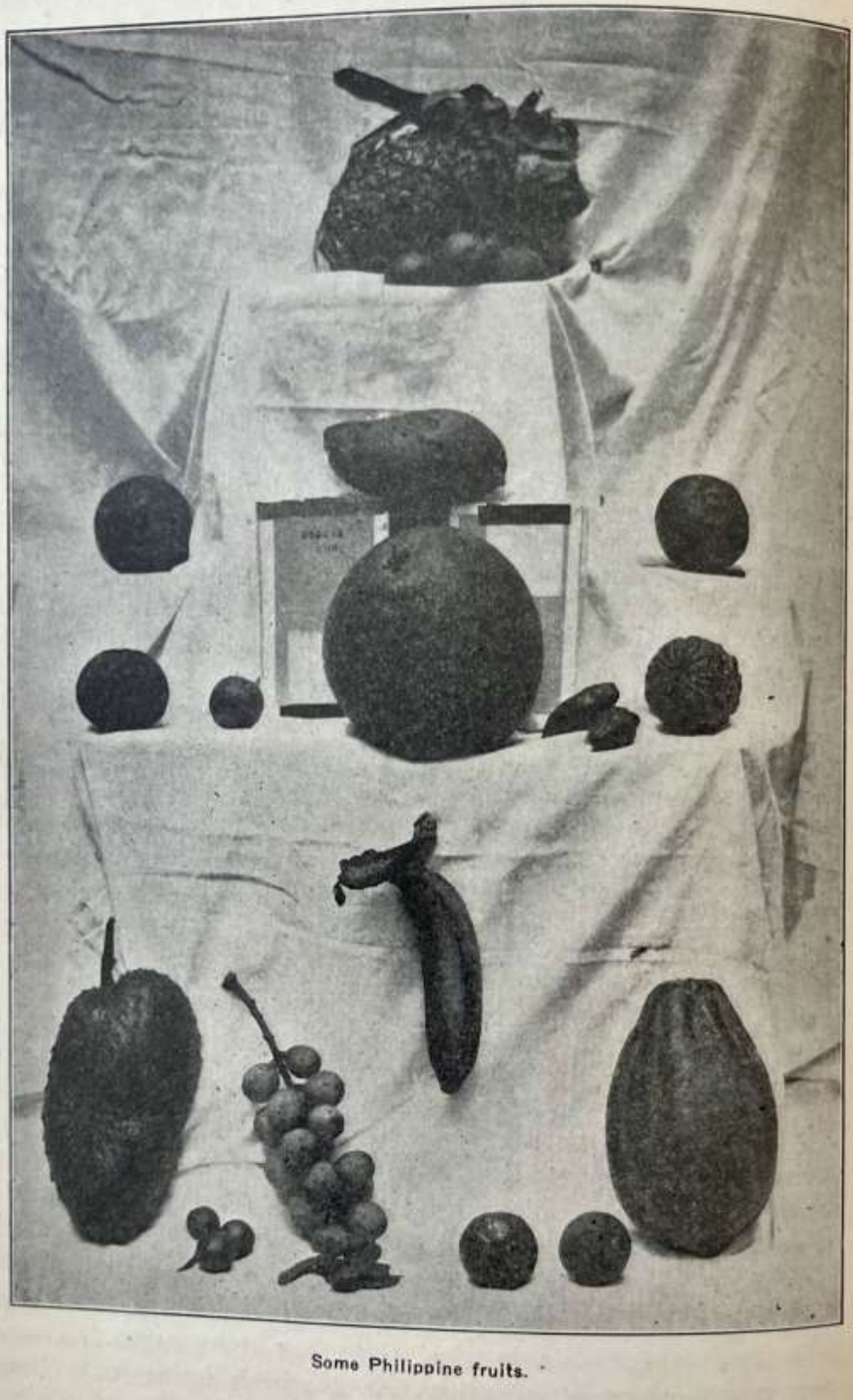
Copy the five most popular ones into your notebooks.

LESSON XII

FRUITS—SOME COMMON SIMPLE WAYS OF SERVING THEM

Excepting bananas, fresh fruits have little food value. We eat them for their delicious taste, their thirst-quenching juices, and the mineral compounds which they contain. We need this mineral matter to keep our blood pure and our tissues sound. People who eat much rice and fish need a great deal of fresh fruit. Only sound ripe fruit is fit to eat. Unripe fruit, or partly rotted fruit, is poisonous because of the bacteria it contains. Fruit should be washed or wiped clean with a damp cloth before being eaten. There are many ways of serving fruits which bring out their flavor and make pleasing additions to a meal.

Read and discuss the following recipes:



Some Philippine fruits.

BANANAS.

No other fruit grown in the Philippines is used in so many different ways as the banana is.

Bananas pared, cut thin, and sprinkled with sugar (caramelo preferred), and eaten with coconut milk or fresh milk are delicious. Served with sugar and milk and eaten with rice, they make a very tasty food.

RECIPE—Fried Bananas

Select perfectly ripened "sabás." Allow one teaspoonful of pork fat for three small fruits; fry thin slices until slightly browned. Serve at once. Too long cooking produces a "watery" condition. Lemon juice may be added at the table. "Latundans" are good when fried, but should be cut into thick slices.

EXERCISE 26

Prepare and eat rice as a cereal with sliced banana, sugar, and milk.

PINEAPPLE.

This fruit is a favorite with people in all parts of the world. To be really good, it must be prepared carefully.

The pineapple should be sliced and pared and then, using the point of the knife, every particle of the eyes should be removed. To serve at table as a dessert, the pineapple should be sliced thin, sprinkled with sugar, and served as cold as possible. It should sometimes be served with French dressing instead of sugar.

It is well, when preparing pineapples, to have a dish of cold water at hand and to dip the knife into it every few minutes, as the acid of the pineapple acts upon the steel of the knife very quickly and spoils the flavor of the fruit.

Pineapple should never be prepared in a tin dish. If prepared in tin, it will be dark and the flavor will be poor.

(CAUTION.—Pineapple set away in an open tin becomes absolutely poisonous.)

RECIPE—Pineapple Juice (beverage)

Pare and grate the pineapple. For every two cups of grated fruit allow a cup of white sugar. Mix well, put into an earthen dish, cover, and leave over night. In the morning strain out the juice. When needed, dilute this juice with cold water; or if convenient, serve undiluted and iced.

RECIPE—Pineapple Gulaman

Pour a cup of boiling water over one cup of gulaman that has been washed and cut into short pieces; bring this to a boil and add two cups of pineapple juice. Boil until the gulaman dissolves. Strain and pour into a deep platter to cool. When cold, cut into tiny cubes and serve in glasses of coconut milk.

EXERCISE 27

Prepare pineapple juice.

EXERCISE 28

Prepare sliced pineapple.

ORANGES

Orange juice strained and served as cool as possible makes a delicious and refreshing drink.

Oranges pared, cut into thin slices, and sprinkled with sugar, make a dainty dessert.

Oranges, pineapple, and coconut, make a famous dish called "ambrosia."

RECIPE—Ambrosia

Ingredients:

- 1 coconut.
- 6 juicy oranges.
- 1 pineapple.
- 1½ cups white sugar.

Method of Preparing.—Grate the coconut. Pare the pineapple, and pick it into small pieces with a fork. Cover with sugar. Pare the oranges and cut them into small pieces; cover them also with sugar. Then mix the pineapple, oranges, and coconut together and add the rest of the sugar. Serve as cold as possible.

LEMONS AND LIMES

Lemons and limes are used for flavoring and for making refreshing drinks.

RECIPE—Three Ways of Making Lemonade

(*a*) Used one cup fruit juice and one cupful sugar to a liter of water.

(*b*) Squeeze the juice from the fruit and use enough of the juice to make a glass of cold water—a pleasant sour. Sweeten to taste.

(*c*) The best way is to have the water boiling and pour it on the lemon juice and sugar. Strain and serve cold. Use the fruit juice in the same proportion as in (*a*).

TAMARINDS

This fruit is also used to make a refreshing drink. Tamarind water is said to be especially good for fever patients.

RECIPE—Tamarind Water

Shell a handful of ripe tamarinds and pour 2 cupfuls of boiling water over them. Cover and leave to cool. When cold, strain this water and sweeten it to taste. Serve as cold as possible.

RECIPE—Coconut Dulce

To the grated meat of a coconut, add half a kilo of dark native sugar, and cook until it is a thick preserve.

LESSON XIII

EGGS

(To be read and discussed in class)

Eggs are another important muscle-building food. The white is almost pure albumen and water, and the yolk contains mineral matter and fat. An egg contains within itself all the building material necessary for the making of a chick and also a supply of nourishment for the chick until it is ready to leave the shell. This makes excellent food for human beings.

Eggs are easily digested and especially valuable as food for the sick. In addition to their great food value, they have many uses in the kitchen. Among other things, they are used to thicken sauces, to make cakes light, to make crumbs or flour adhere to croquettes and vegetables, and to garnish salads.

An egg is covered with a hard, brittle outside shell, which is lined with a thin white membrane. Then comes the white, and floating in the white is the yolk. The yolk is held in place by a tough white cord and contains the embryo from which the chicken grows.

A fresh egg looks as if it had powdered lime on the shell. However, this appearance is not a safe test for fresh eggs, for dishonest dealers often roll stale eggs in lime or chalk dust to make them look fresh. A sure way of telling whether or not an egg is good is to drop it into water.

If it sinks, it is fresh; if it floats, it is stale. There are several other ways of determining whether or not an egg is fresh.

Eggs spoil because the shell is porous. Part of the contents of the shell evaporates, air enters, and the egg becomes stale. Because the egg shell is not air tight, eggs should be kept in clean places.

Eggs keep fresh only a few days. They should be kept in a cool, dry, airy place. They may be kept a long time if they are packed small end down in sand, lime, or saw dust; but eggs so kept do not have a good taste, and are not good to serve plain or in omelet or custard. They may, however, be used with other materials in baking.

When an egg is to be broken, it should be taken firmly in the left hand and struck sharply with a knife. The divided shell should then be pulled apart by the thumbs. The egg should be held upright so that the yolk remains in one half of the shell. The yolk should then be passed from one half of the shell to the other half several times. The white should be permitted to run over the edge into a plate prepared to receive it.

Many girls, when breaking an egg, crack it and pick off the shell in tiny bits. This is a very slow and awkward method—one that has no place in the school kitchen.

EXERCISE 29

Bring enough eggs to school to have one for every two girls. Look at the egg carefully. Can you tell by its appearance whether or not it is fresh? How can you tell whether or not an egg is fresh? Why do eggs spoil? How long will an egg keep fresh?

EXERCISE 30

Break the eggs. Find the shell, the membrane lining the shell, the white, the yolk, the cord which holds the yolk in place, the embryo from which the chick grows.

Look at the different parts of the egg under a magnifying glass.

Tell five uses of eggs.

Scramble the eggs you have been studying and serve them with bread.

(NOTE TO TEACHER.—Have an egg for each two girls. Let two girls work together in front of the class, the others watching carefully. Each girl should taste the result of every recipe that is worked out.)

RECIPE—Scrambled Eggs

Ingredients:

- 6 eggs.
- 1 tablespoonful lard.
- Salt and pepper to taste.

Method of Preparing.—Break the eggs into a bowl and stir them gently until the yolks are broken and mixed with the white. Add the salt and pepper. Put the lard into the frying pan. When it is hot, turn in the eggs and stir continually until they are set. Serve immediately.

EXERCISE 31

Prepare each of the following recipes:

RECIPE—Egg Broth (for the sick)

Ingredients:

- 1 egg.
- 1/8 teaspoonful sugar.
- Salt to taste.
- 1 cup hot milk.

Method of Preparing.—Beat the egg, add the sugar and salt, pour the hot milk over them, and serve immediately. Hot water, broth, soup or tea may be used instead of the milk.

RECIPE—Eggnog (for the sick)

Ingredients:

- 1 egg.
- 1 tablespoonful sugar.
- 1 cup of milk.
- 1 tablespoonful brandy.

Method of Preparing.—Beat the egg, add the sugar, then the milk, and lastly the brandy.

RECIPE—Savory Custard (for the sick)

Ingredients:

- 1/6 cup of milk.
- 1/6 cup of water.
- 1 tablespoonful of beef extract.
- ⅛ teaspoonful of salt.
- ½ egg.

Method of Preparing.—Dissolve the beef extract in the hot water; add the hot milk and salt; add this to the beaten egg. Strain into a cup and set in hot water over the fire until firm.

> (NOTE TO TEACHER.—Explain the cost and use of beef extract and tell where it may be bought.)

RECIPE—Soft-cooked Egg (good for little children and sick people)

Ingredients:

- 1 egg.
- 2 cupfuls boiling water.

Method of Preparing.—Put the unbroken egg into a saucepan with 2 cupfuls of water boiling vigorously; cover tightly, take from the fire, and leave for eight minutes. Then it is ready to be served.

RECIPE—Hard-cooked Egg

Ingredients:
- **1 egg.**
- **2 cupfuls cold water.**

Method of Preparing.—Put the egg into cold water, cover and heat slowly until it boils. Take from the fire and leave covered twenty minutes. Then put into cold water. These are hard to digest and should not be given to sick people or little children. Use them to garnish salads and rice dishes, or to put into soups.

RECIPE—Poached Egg

Ingredients:
- **1 egg.**
- **1 cupful boiling water.**
- **Salt and pepper to taste.**

Method of Preparing.—Break the egg into a saucer, slip the egg into boiling water, cover and cook slowly until the white is firm and a film has formed over the yolk. Take up with a skimmer, drain, trim off the rough edges and serve on a slice of toast. Season with salt and pepper.

RECIPE—Plain Omelet

Ingredients:
- **1 egg.**
- **1 teaspoonful lard.**
- **A bit of salt.**
- **A little pepper.**
- **1 tablespoonful milk.**

Method of Preparing.—Beat the yolk of the egg and add the salt, pepper and milk. Beat the white until stiff. Cut it into the yolk. Heat a frying pan and rub it well with lard; turn in the omelet. When the omelet is set, fold and serve immediately.

RECIPE—Bread Omelet

Ingredients:
- **2 tablespoonfuls bread crumbs.**
- **Pepper and salt to taste.**
- **1 egg.**
- **1 teaspoonful of pork fat.**
- **½ cup milk.**

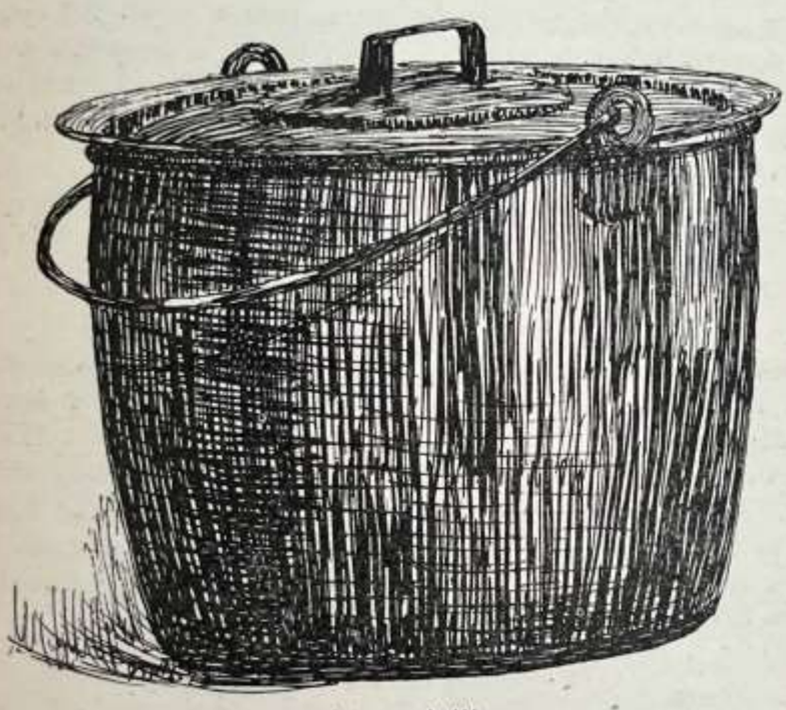
Method of Preparing.—Soak the bread crumbs in the milk for fifteen minutes, then add the salt and pepper. Separate the yolk and white of the egg and beat each until light. Add the yolk to the bread and milk and put in the white. Cook as a plain omelet.

(SUGGESTION.—Omelets may be varied by adding chopped meat, fish, cooked vegetables, cheese, or whatever the fancy dictates, just before folding over.)

LESSON XIV

SOUPS

To make soup a perfect food, the solid meat must be changed into a liquid form; and in order to do this, the fiber must first be softened so that the juices and blood may draw out. As a low degree of heat changes the albumen in the meat (which is similar to the white of an egg) into a solid form, it is necessary to have a slow fire in preparing soups. It is also advisable to use soft water, because soft water makes its way into the tissues more readily than hard water, thereby softening the texture of the meat and allowing the juices to escape more easily. Soup should not be boiled, as the albumen on the surface of the meat would immediately coagulate and thereby prevent the juice from dissolving and being drawn out into the water. Salt hardens the water, and should not be added until the soup is nearly cooked.



Model soup kettle.

Soup should be made in a porcelain-lined or granite-iron soup kettle with a close cover, because the juices of the meat are acid and will act upon a metallic kettle, thereby giving the soup an unpleasant taste. A close cover is necessary in order to prevent evaporation and also to keep out the dust, ashes, and smoke.

Soups may be thickened in a variety of ways—with flour and water, barley, rice, noodles, tapioca, or with the various Chinese and native pastes.

EXERCISE 32

Read and discuss the following recipes and prepare one kind of soup:

RECIPE—Caramel

Ingredients:
- 2 tablespoonfuls sugar.
- 2 tablespoonfuls boiling water.

Method of Preparing.—Put the sugar into a small tin cup and let it melt and then bubble over the fire; when it becomes a seething brown mass (not burned) pour in 2 tablespoonfuls of boiling water carefully and stir until the sugar is dissolved. Use enough of this to color clear soups.

RECIPE—Noodles

Ingredients:
- 1 cupful flour.
- 4 egg yolks.
- ½ teaspoonful salt.

Method of Preparing.—Put a cupful of flour into a soup plate, and make a well in the center. Put into it the yolks of 4 eggs and ½ teaspoonful of salt. Mix the flour gradually into the yolks. Work until the dough is no longer sticky. Roll out into a very thin sheet. Place in a towel and swing in the air, or place in the sunshine a minute to dry. Then roll it up tightly like a scroll and cut it crosswise into fine sections or "noodles"; drop these into boiling-hot soup and cook fifteen minutes.

RECIPE—School Soup

Ingredients:
- 2 kilos of beef marrow bones.
- 1 kilo of lean beef cut into pieces.
- 2 heads of garlic broken into cloves.
- 6 potatoes.
- Thickening: ½ cup barley, or rice, or tapioca, or as many noodles as a cup of flour will make.

Method of Preparing.—Cut the meat and vegetables into small pieces, put them into a large pot, cover with cold water, and simmer for three hours. If barley or rice is used for thickening, it may be put into the pot at the same time as the meat and vegetables.

The bones should be cracked and put into a large pot with three or four laurel leaves and covered with cold water. Set this pot over a slow fire where it will not reach the boiling point in less than an hour; keep it closely covered and let it simmer. Strain this liquid into the soup and add the thickening—noodles, tapioca, or vermicelli. (See the preceding recipe for making noodles). Let it boil five minutes for flour and water; or twenty if noodles, vermicelli, or tapioca is used. Add salt and pepper and set aside to cool.

RECIPE—Chicken Soup

Ingredients:

- 1 fowl.
- 3 liters of cold water.
- 1 onion.
- ½ cupful raw rice.
- 1 tablespoonful flour.
- Salt and pepper to taste.

Method of Preparing.—A tough old fowl makes a better soup than a tender young chicken. Cut up the fowl, severing every joint. Put it into a soup kettle, allowing a liter of water for every half kilo of meat. Add a sliced onion. Bring slowly to a boil and cook until the meat drops from the bones. Set aside to cool. Take out the bones, cut the meat into small neat pieces, and return it to the soup. Season with salt and pepper and when it reaches the boiling point, add a half cupful of rice; cook until the rice is tender, or about twenty minutes. Thicken slightly with a tablespoonful of flour mixed with a little cold water.

RECIPE—Okra Soup

Ingredients:

- 1 fowl.
- 1 onion.
- 1 tablespoonful lard.
- 1 liter of sliced okra.
- 2 liters hot chicken broth.
- 3 large ripe tomatoes.
- Salt and pepper to taste.

Method of Preparing.—Cut up a fowl, cover it with cold water, and cook slowly until tender. Brown one onion in a heaping tablespoonful of lard; add a liter of sliced okra and fry it well, stirring all the time to prevent its burning. Add 2 liters of hot chicken broth and let the mixture cook down to one liter. Add 3 large ripe tomatoes pared and cut fine; season to taste with salt and pepper.

Serve with a tablespoonful of boiled rice in each soup plate.

RECIPE—Bean and Tomato Soup

Ingredients:

- 3 cupfuls dried beans.
- 2 liters cold water.
- 1 kilo fresh pork.
- 1 large onion.
- 2 laurel leaves.
- 2 cupfuls ripe tomatoes.
- 1 teaspoonful sugar.
- Salt and pepper to taste.

Method of Preparing.—Soak the beans over night in cold water; drain. Put the pork into 2 liters of cold water and bring slowly to a boil; then add the soaked beans, a sliced onion and two laurel leaves, and cook until the beans are tender and broken into pieces. Lift out the pork; pass through a sieve the beans, the onion, and the water in which they were boiled; return to the fire with a cupful of fresh tomatoes pared and chopped fine. Cut the pork into small pieces and return to the soup; season to taste with salt and pepper and a very little sugar; thicken with a tablespoonful of flour stirred into a little cold water.

RECIPE—Rice Soup

Ingredients:

½ cupful rice.
1 liter of chicken broth.
2 yolks of egg.
1 cup coconut milk.
Salt and pepper to taste.

Method of Preparing.—Boil half a cupful of well-washed rice for twelve minutes. Pour over it one liter of chicken broth, cook until the rice is tender, put through a strainer, and return it to the fire. Beat the yolks of 2 eggs, and add to them a cup of coconut milk; add this to the soup and stir for one minute. Do not allow it to boil. Add salt and pepper to taste.

RECIPE—Mongo Soup (school soup)

Ingredients:

3 cupfuls mongos.
4 liters cold water.
3 cupfuls mixed vegetables.
3 tablespoonfuls pork fat.
2 tablespoonfuls of flour.
(A ham or beef bone may be used.)

Method of Preparing.—Wash the mongos, cover with cold water, and bring to a boil. Drain, add 4 liters of cold water, heat slowly, and simmer gently. A ham or meat bone may be added. When the mongos are tender but still unbroken, add salt and pepper and 3 cupfuls mixed chopped vegetables such as are in season—onions, carrots, gabi, camotes, etc.—which have been slowly cooking in a little pork fat until tender and are slightly browned. Continue cooking the soup until the mongos are pulpy; then press the entire mixture through a sieve, rubbing through as much pulp as possible. Return it to the fire, boil up once, and thicken slightly with a little flour paste. If this is not done, the pulp will sink and separate from the body of the soup.

(SUGGESTION.—In serving mongo soup in the home, pass toasted or fried bread croutons. Add one or two quartered hard-boiled eggs and some thin slices of lemon just before serving.)

RECIPE—Tondo Fruit Stew (school soup)

Ingredients:

- 1 liter boiling water.
- 2 cups ubi.
- 2 cups gabi.
- 4 camotes.
- 12 bananas.
- 2 tablespoonfuls aniseed.
- 3 cups coconut milk.
- 3 cups brown sugar.

Method of Preparing.—Chop the fruit and vegetables into small pieces, cover them with the boiling water, add the aniseed and the coconut milk, and boil an hour; then add the sugar. Stir until it dissolves. Take the stew from the fire and leave it covered until cool enough to eat.

EXERCISE 33

Write up home recipes for making soups. Read and discuss in class. Prepare one or more kinds of soup according to these recipes.

LESSON XV

STEWS, SAUCES, AND GRAVIES

(To be read and discussed in class)

The problem of making a little meat go a long way is one that a great many housekeepers have to consider; for meat is the most expensive food in daily use. A knowledge of the proper preparation of wholesome stews and gravies is of great importance where rice with gravy of some sort is the base of the food. Rice with a nourishing gravy makes a good meal; and supplemented with fresh fruits and green vegetables, it affords a cheap, healthful, and varied diet. To feed the family on the least expenditure of money that will keep them well, strong, and contented, is one of the great problems of home makers.

Stews are dishes made by cooking meat and vegetables in a little water. The water is as much a part of the dish as the meat and vegetables. Stews are very nourishing and economical and are particularly adapted to the needs of pupils at the time the school lunch is served.

Gravy is the cooked juice of meat or a mixture of meat juice with water, thickened with flour. Anything eaten with food to improve its relish may be called a sauce. All gravies are sauces, but not all sauces are gravies.

A sauce may be liquid or semi-liquid, and is used to add flavor, moisture, or attractiveness to our food.

Stews, gravies, and sauces are much improved by using a little flour for thickening. This may be added in any of three ways. The flour may be cooked with the fat before any liquid is added. This is usually the best way, but it requires care. The liquid must be added little by little and the stew must be stirred continually until it boils. Or, the flour may be mixed with lard or with cold water and stirred into a boiling liquid. If the flour is mixed with water, it must be prepared carefully or the result will be lumpy.

Meat that is boiled rapidly becomes tough and dry. Meat should be stewed in the following manner: Have the water boiling when the meat is put in; then set the meat where it will keep hot but will not boil and allow it to cook forty-five minutes for every pound of meat.

EXERCISE 34

Read and discuss the following recipes and prepare one stew, one gravy, and one sauce.

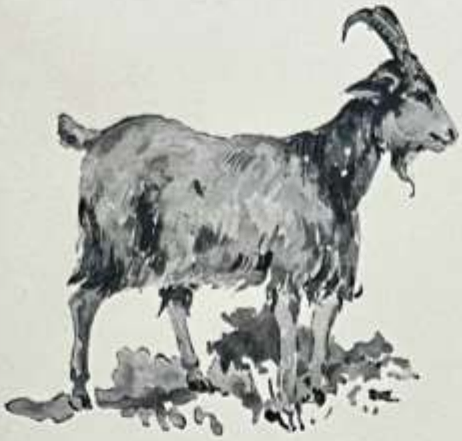
RECIPE—Meat Stew

Ingredients (goat, beef, or pork may be used for this):
- ½ kilo of meat.
- 2 liters water.
- 4 good-sized onions.
- 2 cupfuls of gabi, or ubi, or any other non-sweet tuber, cut into dice.
- 1 tablespoonful of flour.
- Salt and pepper to taste.

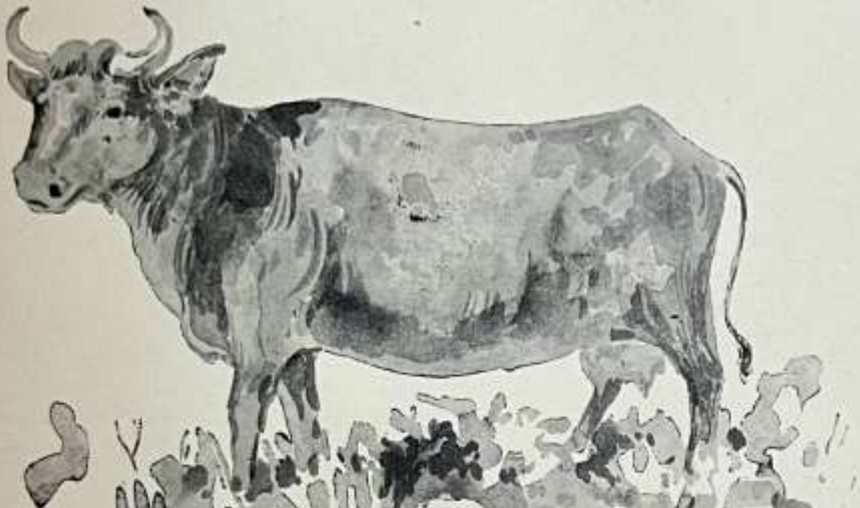
Method of Preparing.—Cut the meat into small pieces and cover with boiling water; add the onions sliced, and cook slowly for two hours. Season with salt and pepper and thicken slightly with the flour stirred into a little cold water; one-half hour before serving, add the gabi or ubi.

RECIPE—Goat Stew

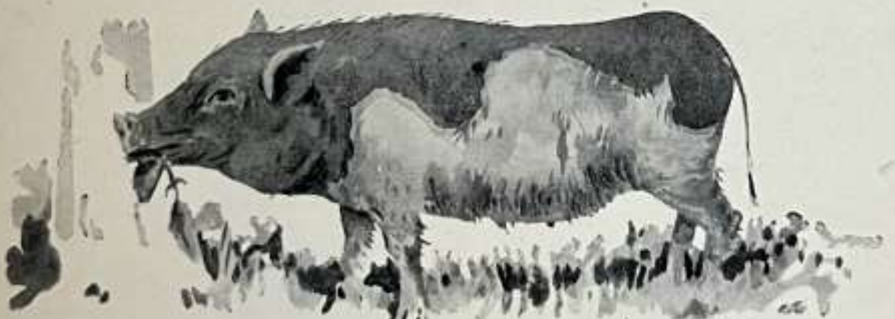
Ingredients:
- 2 kilos meat.
- 1 large onion.
- ½ garlic.
- 2 cupfuls gabi.
- 1 cupful carrots.
- 1 tablespoonful flour.
- Salt and pepper to taste.



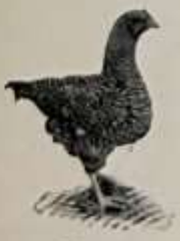
Goat.



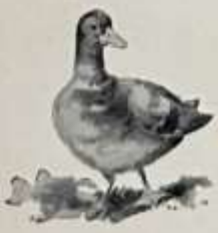
Cow.



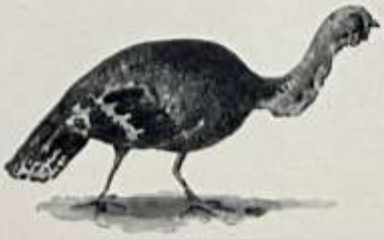
Pig.



Hen.



Duck.



Turkey.

Sources of our animal food supply.

Method of Preparing.—The neck and breast of a young goat makes a desirable piece for this stew. Add the onion cut into pieces, the garlic peeled, and enough cold water to cover the meat. Cover the kettle tightly and let simmer for two hours; then add the gabi and the carrots pared and cut into small pieces. Salt and pepper to taste. Cook thirty minutes longer and add the flour mixed with a little cold water.

RECIPE—Codfish and Tomatoes

Ingredients:

1 cupful codfish.
½ cupful lard.
½ garlic or half an onion.
1 cupful boiling water.
18 ripe tomatoes (native).
Salt and pepper to taste.
1 tablespoonful flour.

Method of Preparing.—Wash the codfish and cut it into strips. Remove the bones and cover the fish with cold water. Bring this to the boiling point, then drain. Put the lard into a frying pan, add garlic or onion to taste, and fry until soft. Then add the codfish, a cup of boiling water, and the ripe tomatoes pared and cut up. Season with pepper and more salt, if necessary, and cook slowly twenty minutes. Stir the gravy thick with cooked rice or thicken it with one of the pastes—*miki*, *sutangjon*, or *misua*—or thicken it with a tablespoonful of flour and serve it as it is, to be eaten with rice.

RECIPE—Stewed Tripe

Ingredients:

½ kilo tripe.
2 tablespoonfuls lard.
1 tablespoonful flour.
2 cupfuls boiling water.
1 cupful mushrooms (if in season).
1 tablespoonful vinegar.
Salt and pepper to taste.

Method of Preparing.—Tripe is the large stomach of the beef or hog. It is very nutritious. To prepare it, scald with boiling water and scrape off the inside coating. Wash it well and scrape until it is clean and white. Cut the tripe into inch pieces and fry it in hot lard until brown. Then take up the tripe, add the flour to the lard, and cook a minute; then add little by little two cupfuls of boiling water, stirring constantly. If mushrooms are in season, add a cupful cut fine; simmer gently ten minutes and add a tablespoonful of vinegar and salt and pepper; put in the tripe to reheat; serve hot with rice.

RECIPE—Liver

Ingredients:

3 tablespoonfuls of lard.
1 tablespoonful of flour.
3 cupfuls of water.
Garlic, salt and pepper to taste.
½ kilo of liver.

Method of Preparing.—Cut the liver into small pieces. Put the lard into the frying pan and when hot fry the garlic, add the flour, and stir until brown. Add the water gradually, stirring all the while until it boils; put in the liver, cover, and simmer gently an hour; add salt and pepper to taste.

RECIPE—Pork Gravy

Ingredients:

- **4 tablespoonfuls pork fat.**
- **1 garlic.**
- **1 tablespoonful flour.**
- **2 cups boiling water.**
- **Salt and pepper to taste.**

Method of Preparing.—Fry fresh pork. Take out the meat and all the fat but about four tablespoonfuls. In the fat, fry a head of garlic, add a tablespoonful of flour, and stir for a minute; then add 2 cupfuls of boiling water and continue stirring until the gravy is smooth. Season with salt and pepper.

RECIPE—Brown Gravy

Ingredients:

- **1 tablespoonful fat.**
- **1 cupful meat broth.**
- **1 tablespoonful chopped onion.**
- **½ teaspoonful salt.**
- **⅛ teaspoonful pepper.**
- **1 teaspoonful lemon juice.**
- **1 tablespoonful flour.**

Method of Preparing.—Put the fat into the frying pan and add the onion; fry until light brown. Add the flour and cook the mixture a few minutes; then add the hot broth, 2 tablespoonfuls at a time, stirring each time until smooth. Season and serve.

RECIPE—Egg Sauce

Ingredients:

- **2 tablespoonfuls pork fat.**
- **2 tablespoonfuls flour.**
- **2 cupfuls hot coconut milk.**
- **Salt and pepper to taste.**
- **2 raw eggs.**
- **2 hard-boiled eggs.**

Method of Preparing.—Heat in a saucepan two tablespoonfuls of fat fried out of pork. When it bubbles, put in all at once 2 tablespoonfuls of flour; stir until well cooked. Have ready heated the coconut milk; to this add gradually the flour and lard mixture and beat until smooth. Cook five minutes. Season with salt and pepper to taste, then beat the yolks of 2 raw eggs with the thickened milk. Then add to the mixture 2 hard-boiled eggs with the whites chopped very fine and the yolks passed through a sieve.

RECIPE—Shrimp Sauce

Ingredients:

- 1 cupful shrimp.
- 1 tablespoonful lard.
- 1 tablespoonful flour.
- 2 cupfuls boiling water.
- Salt and pepper to taste.

Method of Preparing.—Mix in the frying pan the lard and the flour and cook until brown; then add the boiling water and stir until it boils. Add salt and pepper and the shrimp, which should be previously boiled and peeled.

(SUGGESTION.—This same sauce may be used for crab meat; or 3 hard-boiled eggs may be cut into it in place of meat or fish.)

RECIPE—Milk Sauce

Ingredients:

- 1 tablesponful pork fat.
- 1 tablespoonful flour.
- 1 cupful milk.
- ½ cupful water.
- 2 raw eggs.
- Salt and pepper to taste.

Method of Preparing.—Heat the fat in a frying pan and mix with it the flour; cook a minute and add ½ cupful of water, then a cupful of milk, and stir until it boils; add salt and pepper and, when boiling, stir into it 2 raw eggs. Take from the fire at once.

RECIPE—Tomato Sauce

Ingredients:

- 1 liter ripe tomatoes.
- 1 teaspoonful onion juice.
- 2 teaspoonfuls sugar.
- Salt and pepper to taste.
- 1 tablespoonful pork fat.
- 1 tablespoonful flour.

Method of Preparing.—Peel and slice the tomatoes. Cook for twenty minutes and then strain. Season with the onion juice, sugar, and salt and pepper. Return the mixture to the fire and when it boils, stir in a tablespoonful of pork fat mixed together with one of flour. Simmer two minutes and serve. Use with meat, fish, or boiled rice.

RECIPE—Coconut Milk

Ingredients:

- 4 large coconuts.
- 1½ liters boiling water.

Method of Preparing.—Grate the coconuts; cover the meat with a liter and a half of boiling water. Stir and rub until all the taste is taken out of the meat. Strain through a cloth.

This milk is excellent when sweetened and used as a pudding sauce. When it is thus used, it should be allowed to stand until the milk and water separate and the top only is used in the sauce. Undiluted coconut milk may be used in soups and gravies and whenever milk is needed.

RECIPE—White Sauce Made With Coconut Milk

Ingredients:

- 1 tablespoonful flour.
- 1 cupful coconut milk.
- Salt to taste.

Method of Preparing.—Mix one tablespoonful of flour with 2 tablespoonfuls of rich coconut milk; when smooth, set it on the fire and add gradually a cupful of coconut milk and stir until it boils. Boil three minutes. Take from the fire; add salt to taste.

This goes well with shelled beans, green papaya, or calabaza blanca, and may be used wherever the ordinary white sauce would be appropriate.

RECIPE—Mint Sauce

Ingredients:

- 6 sprays of mint.
- ½ cup vinegar.
- 2 tablespoonfuls white sugar.
- Salt and pepper to taste.

Method of Preparing.—Chop the mint very fine and add the vinegar in which the sugar has been dissolved. Add a little pepper and salt. Serve with cold meat, especially with mutton or goat meat.

EXERCISE 35

Write, read, and discuss home recipes for making stews, sauces, and gravies. Prepare one dish of each in class.

GRADE SIX

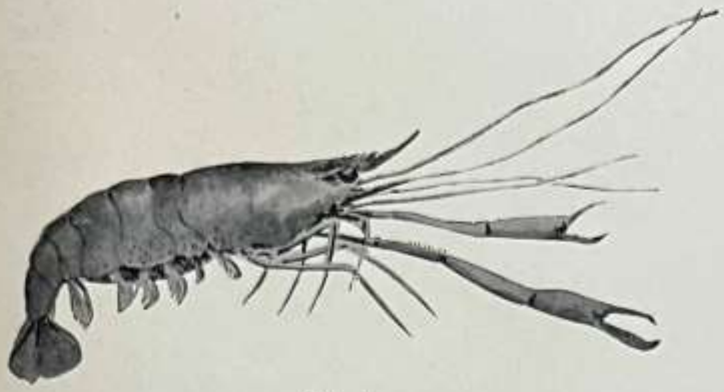
LESSON XVI

PASTES

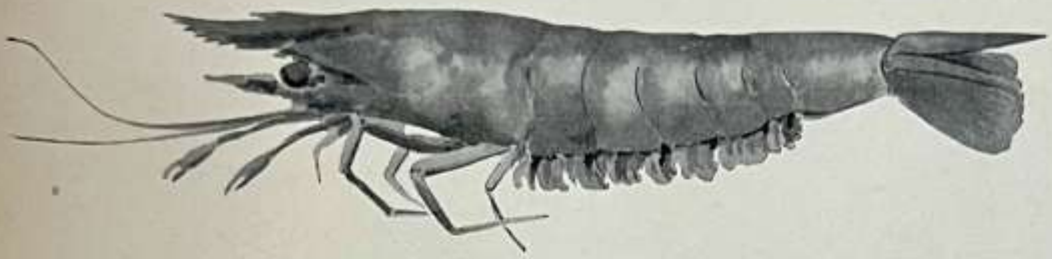
Misua, sutangjon, miki, and pastes of various kinds are sold in the native markets. These are cheap and popular; and when combined with vegetables and meat gravies, they make a nutritious meal.

These pastes should always be thoroughly cooked in plenty of boiling salted water or meat broth. There are many ways of preparing them.

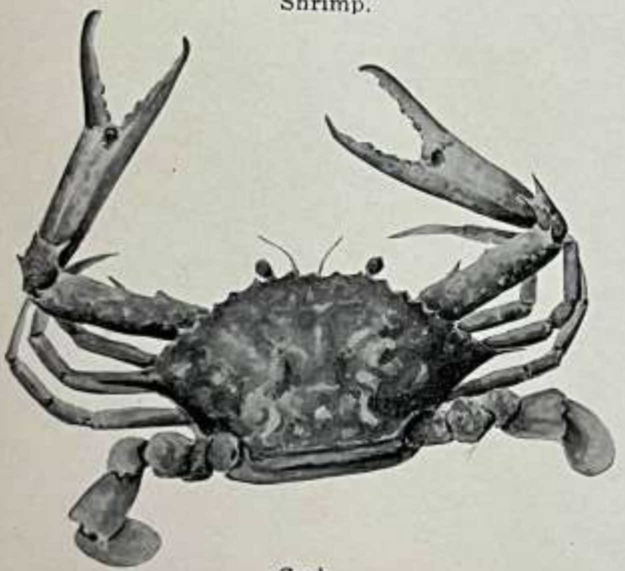
"*Miki*" is called "noodles" in English and is easy to make in the home kitchen.



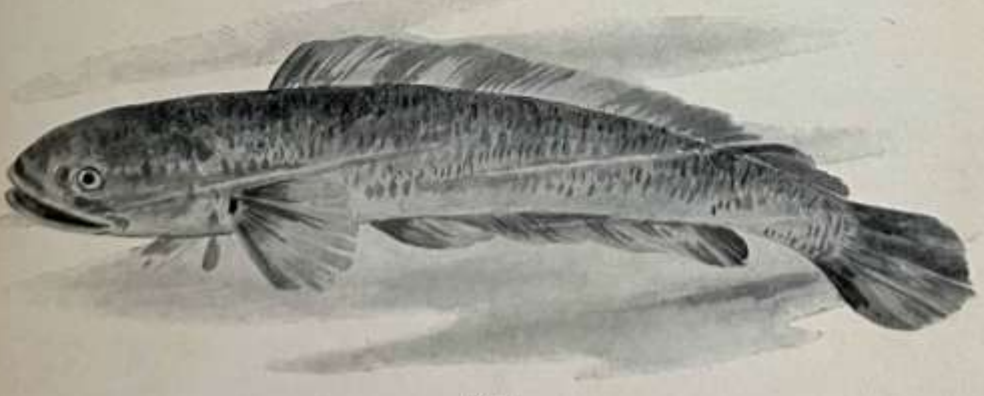
Lobster.



Shrimp.



Crab



Fish.

Other sources of our animal food suppply.

EXERCISE 36

Read and discuss the following recipes. Prepare a dish in accordance with one recipe.

RECIPE—Noodles; "Miki"

Ingredients:

1 beaten egg.
½ teaspoonful salt.
Enough flour to stiffen.

Method of Preparing.—Put 3 tablespoonfuls of flour into a soup plate and turn over it one beaten egg. Mix and work well ten or fifteen minutes, adding more flour when necessary. When smooth and elastic, roll very thin and cut into narrow ribbons. Place these in the sunshine to dry for a few minutes. These noodles will keep indefinitely when dried hard. Use them to thicken any good soup or serve in tomato sauce or in any home recipe for *pansit.*

RECIPE—Misua Stew

Ingredients:

½ kilo fresh pork.
1 head of garlic.
Salt and pepper to taste.
1 cupful misua.

Method of Preparing.—Cut up the pork, cover it with cold water, and boil until it is thoroughly cooked. Fry the garlic and pour the pork, water, and all into the frying pan. Add salt and pepper, then the misua to thicken, and boil until the misua is soft (about five minutes). Misua requires less cooking than the other pastes.

Misua may be used to thicken any stew.

RECIPE—Sutangjon Stew

Sutangjon may be used to thicken any meat stew. It should be cooked ten or fifteen minutes.

RECIPE—Sutangjon with Tomatoes

Ingredients:

4 cupfuls boiling water.
½ teaspoonful salt.
2 cupfuls tomato sauce.
2 cupfuls sutangjon.

Method of Preparing.—Cut the paste into convenient lengths to eat, and cook it in boiling water until soft (about ten minutes). Then drain; turn over it the tomato sauce. Cook a few minutes longer. For tomato sauce see recipe on page 127.

RECIPE—Sutangjon or Miki with Bean-cheese

Ingredients:

2 cupfuls of paste.
2 tablespoonfuls of lard.
1 chopped onion or garlic to taste.
2 cupfuls of tomato sauce.
1 cupful diced bean-cheese (tajure).
½ cup milk.
Salt and pepper to taste.

Method of Preparing.—Put the paste into boiling water and cook thoroughly. Then drain. Put into a frying pan the lard and chopped onion or garlic cook until soft but not brown; add 2 cupfuls of tomato sauce, the bean-cheese, and the paste. When boiling, add ½ cup milk. Salt and pepper, and serve at once.

EXERCISE 37

Write home recipes for using native pastes to be read in class. Use two of these home recipes in the school kitchen.

LESSON XVII

FOOD FOR THE SICK

Read and discuss the following recipes. (For the first three of these recipes, only one fowl is required.)

RECIPE—Chicken Broth (a)

Cut up a small fowl. Cover it with cold water and let it simmer, adding sufficient hot water from time to time to keep it just covered. After the meat has fallen from the bones, take off the kettle and strain the contents. Let the liquid get cold and remove all the fat.

Season one-third of the broth with salt and pepper and return it to the fire. If very strong, add a little boiling water. Put into the broth a teaspoonful of rice or sago and simmer until it is tender.

RECIPE—Chicken Broth (b)

To another third of the broth mentioned in the foregoing, add one-half as much milk as there is broth and serve hot with a cracker or pan de caña.

RECIPE—Jellied Chicken

Cut the breast of the chicken into neat pieces and with the remaining third of the broth make a little mold of jellied chicken.

Dissolve a third of a cupful of gulaman in a cupful of boiling broth. Strain it over the prepared white meat. Serve cold on a lettuce leaf.

The kettle in which chicken broth is prepared must be clean and bright, if the broth is to be of the best.

EXERCISE 38

Prepare the three foregoing recipes.

RECIPE—Scraped Beef

Take a piece of lean beef as large as one's hand; hold it firmly by one corner and scrape off the pulp from the fiber with a spoon. When one side is finished, turn it over and scrape the other side.

This red pulp should be seasoned with salt and pepper, made into a little cake, and put into a heated dry frying pan over a hot fire for one minute. Turn only once. Serve with a little mashed camote.

When solid food is not easily digested, this is a good food.

RECIPE—Raw Egg

This is one of the easiest foods to digest, and one that is commonly given to tuberculosis patients.

To serve raw egg, break the egg into a glass. Season it with pepper and salt and vinegar or with a little lemon juice, and let the patient swallow it whole.

RECIPE—Egg Gruel

Ingredients:

- 1 egg.
- 1 teaspoonful sugar.
- 1 cup hot milk.
- A very little nutmeg.

Method of Preparing.—While the milk heats, beat the yolk of the egg till it is light-colored and the white is stiff. Stir into the yolk the sugar and the hot milk. Add the beaten white, mix well, and flavor. Serve hot in a glass.

RECIPE—Cup Custard

Ingredients:

- ½ cup milk.
- ½ teaspoonful sugar.
- 1 egg.
- A little salt and a little nutmeg.

Method of Preparing.—Mix the yolk and white of the egg thoroughly but do not beat light. Add the sugar and salt, then stir in the hot milk, strain into a cup, grate the nutmeg over the top, and steam until firm over water that is gently boiling. Serve very cold.

RECIPE—Milk Toast

Toast a slice of bread a light golden brown. Cut off the crust. Heat half a cupful of milk. Salt it slightly and pour, while hot, over the toast when ready to serve.

Coconut milk may be used, if it agrees with the patient. When coconut milk is used, sweeten it to taste.

RECIPE—Cracker Gruel

Ingredients:

- 3 tablespoonfuls powdered pan de caña or rosquillos.
- ½ cup boiling water.
- ½ cup milk (coconut milk may be used).
- ½ teaspoonful salt.

Method of Preparing.—Add the powdered crumbs to the milk and water. Cook for ten minutes. Add salt and serve. The flavor is much improved if the bread is toasted brown before it is rolled into crumbs.

RECIPE—Milk Porridge

Ingredients:
- 1¼ cups milk.
- 1 tablespoonful flour.
- Salt to taste.

Method of Preparing.—Mix the flour gradually with ¼ cupful of cold milk and stir it gradually into one cupful of hot milk. Cook this in a double boiler for one hour. The salt should be added just before serving.

RECIPE—Gruel Made of Browned Flour (for bowel trouble)

Stir one tablespoonful of flour in a pan over the fire until quite brown. Then stir into it 4 teaspoonfuls of cold water. Have one cupful of boiling water in a stew pan on the fire. Stir the browned flour paste into this, add a pinch of salt, and boil ten minutes. Then add ½ cup of milk and a little sugar. Serve hot.

RECIPE—Beef Broth

Chop a cupful of lean beef fine, cover it with 2 cupfuls of tepid water, and leave it in an earthen vessel for an hour. Then bring slowly to a boil, stirring all the time. Let it cool and strain. Season with salt and pepper.

(NOTE.—See also egg recipes and gruel made from parched corn.)

EXERCISE 39

(Practice in preparing food for invalids)

Prepare a tray in the class with food for a sick person. If a teacher or some member of the class is ill, prepare it especially for her.

Put upon the tray no more food than the patient is likely to eat. No food that has once been taken to the sick room should be served a second time, nor should food that has been returned from the sick room be eaten by any one else.

When arranging the food, use a tray just large enough for the dishes which it is to hold. A handy tray may be made of a clean board of convenient size with pieces of split bamboo nailed to the four sides. Cover the tray with a faultlessly clean napkin; use the prettiest dishes available and lay a bright flower beside the food, unless the patient dislikes flowers. If the person is too weak to sit up to eat, set the tray upon a pillow. This will hold it steady and high enough to bring the food easily within reach.

LESSON XVIII

RECIPES FOR MERIENDA

RECIPE—Baking-powder Biscuit (family recipe)

Ingredients:

- 2 cups flour.
- ½ teaspoonful salt.
- 2 tablespoonfuls lard.
- 4 teaspoonfuls baking powder.
- Enough milk or water to make a soft dough (about ¾ of a cup).

RECIPE—Baking-powder Biscuit (individual recipe)

Ingredients:

- ½ cup flour.
- 1 teaspoonful baking powder.
- ⅛ teaspoonful salt.
- ½ tablespoonful lard.
- ¼ cup of milk or water.

Method of Preparing.—Have the oven heated and the pans greased before preparing the mixture. Grease the pans by wiping them lightly with a bit of paper which has been dipped into lard.

Sift the flour before measuring, and again after the salt and baking powder have been added. Have the lard as cold as possible and rub it into the flour lightly with the tips of the fingers. Add the cold water or milk gradually and mix with a knife. Cutting the dough makes it less tough than stirring it.

The dough should be as soft as possible, consistent with the work of shaping it into biscuits. It must also be handled as lightly and quickly as possible, for it should be in the oven five minutes after the flour is sifted.

Biscuits require a "quick" oven for baking. A "quick" oven will turn a piece of white paper dark brown in four minutes.

Directions for Working (to be written on the blackboard).

1. Mix dry ingredients together.
2. Rub in lard with the tips of the fingers.
3. Add milk or water gradually, mixing with a knife.
4. Flour the dough board and turn out the dough.
5. Pat out lightly until about one centimeter thick.
6. Cut into disks using a small glass or the top of a baking-powder can for a cutter.
7. Lay the disks closely together on a greased baking tin or double banana leaf.
8. Brush the tops of the biscuits lightly with milk.
9. Bake in a hot oven from twelve to fifteen minutes.

EXERCISE 40

With the aid of the teacher, let two girls prepare biscuits, using the family recipe, the remainder of the class watching carefully.

It is suggested that these biscuits be eaten hot in class with guava jelly.

EXERCISE 41

Let each girl make biscuits, working with the individual recipe. Repeat the exercise until every member of the class can make good biscuits quickly and easily.

EXERCISE 42

(Make sandwich biscuit)

Prepare a biscuit dough. Roll it about half as thick as an ordinary biscuit. Cut a circle and cover it with a thick layer of guava jelly. Cover with another circle of dough and press together. Brush the top with milk. Bake in a greased pan in a hot oven.

(NOTE TO TEACHER.—Girls should be required to bring at some stated time a sample biscuit baked at home. This should receive a class mark, the same as work done at school.)

RECIPE—Sugar Cookies (family recipe)

Ingredients:

½ cupful lard or dripping.
1 cup white sugar.
¼ teaspoonful salt.
¼ cup milk.
2 eggs.
2 cups of flour.
3 teaspoonfuls baking powder.
Flavoring: 2 teaspoonfuls lemon or vanilla extract, or ½ teaspoonful cinnamon or nutmeg.

RECIPE—Sugar Cookies (individual recipe, to make eight cookies)

Ingredients:

½ tablespoonful lard or dripping.
1 tablespoonful white sugar.
1 teaspoonful milk.
½ egg (beat the egg before dividing).
Flour to make a stiff dough.
Flavoring: ¼ teaspoonful lemon or vanilla, or $^{1}/_{16}$ teaspoonful spice.

(NOTE.—The relatively large amount of egg in this recipe, as compared with the family recipe, makes baking powder unnecessary. These cookies will also be relatively crisper.)

Method of Preparing.—Line the baking tins with greased paper and be sure the fire is right before beginning to mix the cooky dough.

Beat the lard and sugar together, adding the sugar little by little. The yolks and the whites of the eggs should be beaten separately and the yolks added to the lard and sugar. The plate in which they were beaten should be rinsed with the milk. The milk and flour are added alternately, then the flavoring, and lastly the whites of the eggs should be cut into the dough with a knife. Flour must always be sifted before it is measured, then sifted again with the salt and baking powder. Roll the dough thin and cut it into the desired shape. (Rectangular and circular cocoa boxes make good cooky cutters.) Bake about ten minutes in a quick oven. The cookies may be flavored with lemon, vanilla, cinnamon, or nutmeg; and granulated sugar may be spread over the top just before they are put into the oven.

EXERCISE 43

With the aid of the teacher, let two members of the class prepare cookies, using family recipes. The remainder of the class watch carefully.

It is suggested that these cookies be served with hot chocolate at recess.

RECIPE—Chocolate

Ingredients—for each person to be served, allow:
1 ordinary cake or ball of native chocolate.
½ tablespoonful of white sugar.
½ cup hot milk or half milk and half water.

Method of Preparing.—Add a very little water and melt the chocolate. Add the sugar and the milk gradually. Bring to the boiling point, take from the fire, and beat well; then serve. A more delicious drink is made by beating a fresh egg into the chocolate after it is taken from the fire. One egg should be allowed for each half-liter of chocolate prepared.

EXERCISE 44

Let each member of the class make cookies, working with the individual recipe. These cookies are to be taken home.

(NOTE TO TEACHER.—Girls should be required to bring at some stated time a sample cooky baked at home. This should receive a class mark, the same as work done at school.)

EXERCISE 45

Tell favorite home recipes for merienda foods. Choose and prepare two popular dishes.

LESSON XIX

SANDWICHES

A sandwich consists of two thin slices of bread with some kind of filling between them. The filling may be meat, fish, eggs, cheese, nuts, jam, or whatever the taste may dictate.

Sandwiches are often served at recess, at picnics, and at luncheons of all sorts. The proper way to eat a sandwich is to hold it in the hand and to bite through the three layers. Do not take the top layer only.

EXERCISE 46

Read and discuss the following recipes:

RECIPE—Cold-meat Sandwich

Ingredients:
- 2 thin slices of bread.
- 1 thin slice cold meat.
- Salt and pepper to taste.

Method of Preparing.—Cut a thin slice of cold meat, sprinkle it lightly with salt and pepper, and place it between two thin slices of bread. Ham, beef, mutton, chicken, pork, goat, or any other kind of meat may be served in this way.

RECIPE—Salad Sandwich (individual)

Ingredients:
- 1 tablespoonful chopped meat or fish.
- 2 lettuce leaves.
- 1 teaspoonful French dressing.
- 2 thin slices of bread.

Method of Preparing.—Chop fine some roast or boiled meat or fish, season to taste, and put between two slices of bread upon which have been placed crisp lettuce leaves dipped into salad dressing. (The lettuce may be omitted.)

RECIPE—Egg Sandwich (individual recipe)

Ingredients:
- 1 hard-boiled egg.
- ½ teaspoonful vinegar.
- ¼ teaspoonful olive oil.
- Salt to taste.
- 2 thin slices of bread.

Method of Preparing.—Mash the yolk of the hard-boiled egg and moisten it with a little vinegar and olive oil. Add salt, and work to a paste. Chop the white of the egg fine and mix it with the yolk paste. Spread the mixture on a slice of bread, and cover with another slice.

RECIPE—Salmon Sandwich (school recipe)

Ingredients:
- 1 can of salmon.
- 6 egg yolks.
- 1 teaspoonful onion juice.
- Juice of 1 lemon.
- ¼ cup French dressing.

Method of Preparing.—Shred the salmon and add the crumbled yolks of hard-boiled eggs. Season with onion juice, lemon juice, and any good dressing. Put between thin slices of bread.

SWEET SANDWICHES

A great variety of sandwiches may be made by spreading various jams, or a mixture of jam and chopped nuts, on thin slices of bread. The following are class recipes. Each makes about 20 sandwiches.

RECIPE—Coconut Sandwiches

Ingredients:

- 1 cupful grated coconut.
- ¼ cupful white sugar.
- 1 teaspoonful lemon juice.
- 1 tablespoonful rich coconut milk.

Method of Preparing.—Mix the grated coconut with the white sugar, add the lemon juice and the coconut milk, and spread the mixture between thin slices of bread.

RECIPE—Chocolate Sandwiches

Ingredients:

- 1 teaspoonful butter.
- 6 cakes native chocolate.
- 1 cupful caramel sugar.
- 1 tablespoonful milk.

Method of Preparing.—Melt a small piece of butter in the saucepan, stir into it the native chocolate, and sweeten with the caramel sugar. When the chocolate is thoroughly melted, take it from the fire and let it cool. Moisten with milk and spread on bread.

RECIPE—Coffee (individual)

Ingredients:

- 2 tablespoonfuls coffee.
- ⅔ cup boiling water.
- 3 tablespoonfuls cold water.
- ½ teaspoonful white of egg.

Method of Preparing.—Heat the coffee pot, mix the coffee with the cold water and white of egg, and put it into the hot coffee pot. Then add the boiling water and boil three minutes. Remove the coffee pot from the fire; turn into it a dash of cold water, and let the coffee settle two minutes. Pour out a cupful of coffee and return it to the pot. Then it is ready to use.

EXERCISE 47

Serve the coffee hot with milk and sugar; from the recipes already given, make sandwiches to be served at the same time.

RECIPE—Tea (individual)

Ingredients:

- 1 teaspoonful tea.
- 1 cup boiling water.

Method of Preparing.—Allow one teaspoonful of tea to each cup of boiling water. Measure carefully. Heat the teapot. Put the tea into it and pour freshly boiled water over it; steep four minutes. Serve with milk and sugar or with lemon and sugar. If tea is made in a metal vessel or is allowed to stand without straining, it becomes bitter and dark-colored and is unfit for use. The water must be absolutely boiling when poured over the tea.

EXERCISE 48

Serve the tea hot with sliced limes or lemons and sugar, and make sandwiches to serve with it.

LESSON XX

PUDDINGS

A pudding is a sweet food to be served as a dessert. It is usually a mixture, as of fruit, milk, etc., sweetened and flavored, with a farinaceous basis. Puddings now are commonly boiled or baked, but formerly they were always boiled in a bag. The best known pudding in the Philippines is called by the Spanish name "flan".

EXERCISE 49

Read and discuss the following recipes:

RECIPE—Rice Pudding

Ingredients:

- ½ cup raw rice.
- ½ cup sugar.
- Milk from 3 coconuts.
- Salt to taste.
- 1 tablespoonful yellow lemon rind grated.
- 1 can guava jelly.

Method of Preparing.—Put the rice into the baking pan. Put the sugar into 3 cupfuls of coconut milk, add the grated lemon rind and salt, and pour the mixture over the rice.

Bake in a moderate oven two hours, stirring frequently during the first hour. Cook until a light colored crust forms over the top, spread with a guava jelly, and eat with sweetened coconut milk.

RECIPE—Custard Pudding

Ingredients:

- 2 cups milk.
- 6 eggs.
- ½ cup sugar.
- 1. teaspoonful vanilla.

Method of Preparing.—Stir the sugar into the eggs, add the milk, and then the vanilla. Strain. Pour into a greased pudding dish, and set it into the oven in a pan two-thirds full of water. Bake until firm (about forty minutes). The oven must not be too hot. This pudding may be cooked in hot water like the native *flan*. A cupful of grated coconut may be added to this recipe. When the coconut is used, sweeten to taste.

RECIPE—Coconut Cornstarch

Ingredients:

2 coconuts.
4 cupfuls boiling water.
¾ cupful sugar.
4 tablespoonfuls cornstarch.
5 eggs.

Method of Preparing.—Grate 2 good-sized coconuts, pour over the meat 4 cupfuls of boiling water, and extract the milk in the usual way. Heat one-half of this milk and put into it ¼ cupful of sugar. Wet 4 tablespoonfuls of cornstarch with just enough cold milk to moisten it and pour into the hot milk. Stir until smooth and thick, then set into a pan of boiling water and cook twenty minutes. As soon as it is taken from the fire, pour it into the well-beaten whites of 5 eggs. Beat thoroughly and turn into a mold and leave to cool.

Pudding Sauce.—Heat the rest of the coconut milk. Sweeten it with ½ cupful of sugar and stir into it the beaten yolks of the eggs. Do not let it boil. As soon as the sauce thickens slightly, take it from the fire and cool. This sauce is to be served cold with the cold pudding.

RECIPE—Steamed Pudding

Ingredients:

2 cups flour.
1 teaspoonful baking soda.
1 cup brown sugar.
1 cup coconut milk.
½ cup grated coconut.
2 eggs.
1 teaspoonful salt.

Method of Preparing.—Beat the egg and add the sugar, the salt, and the coconut. Put the soda into the milk and stir until it dissolves. Add this to the egg mixture, stir in the flour, and pour into a greased lard pail or other deep-covered tin. Steam for one hour in a pot of boiling water.

RECIPE—Banana Pudding

Ingredients:

4 cups of flour.
3 teaspoonfuls baking powder.
1 teaspoonful salt.
1 egg.
1 cup cold water.
12 bananas (sabá).
9 teaspoonfuls sugar.
1 tablespoonful lime or lemon juice.

Method of Preparing.—Sift together the salt, baking powder, and flour. Beat the egg and add to it the cold water and stir this into the flour mixture. Roll quite thin and line a deep dish with this pastry. Fill the dish with sliced bananas. Add 3 teaspoonfuls of sugar and the juice of one lime to every four bananas. Put a dough cover on this dish, like a pie cover. Steam one hour in a pot of boiling water.

RECIPE—Chocolate Pudding

Ingredients:

- 2 cups milk.
- 4 cakes native chocolate.
- 6 eggs.
- 12 tablespoonfuls white sugar.
- 1 teaspoonful vanilla.

Method of Preparing.—Into the hot milk, stir the chocolate wet with hot water. When the chocolate dissolves, pour the mixture into a pudding dish and add the yolks of the eggs well beaten and 6 tablespoonfuls of sugar. Bake in a moderate oven about forty minutes. Beat the whites of the eggs stiff; then add 6 tablespoonfuls of sugar and one teaspoonful of vanilla. Spread this over the top of the pudding, and set it again in the oven until the frosting becomes a light brown. If preferred, this pudding may be cooked in boiling water like the native custard.

LESSON XXI

Review of Part II.

PART III

SEWING AND TEXTILE WORK

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PART III

SEWING AND TEXTILE WORK

GRADE FIVE

LESSON I

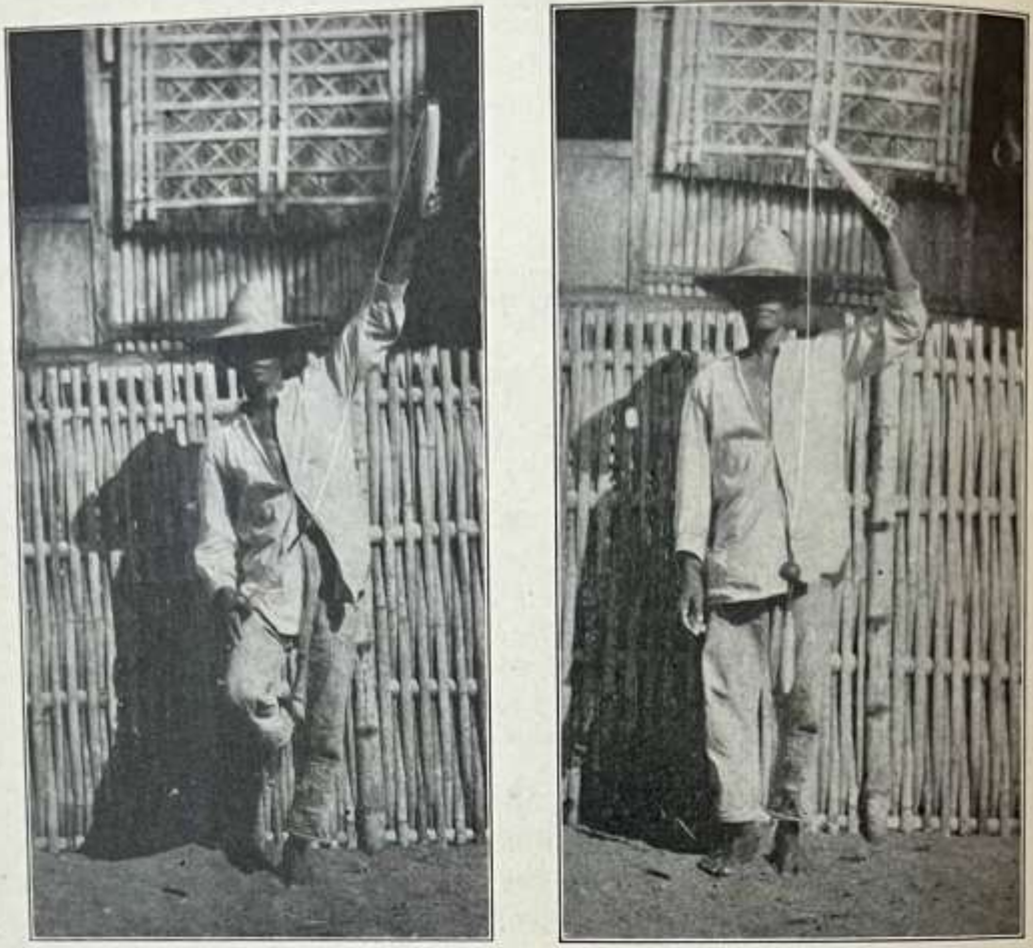
A STUDY OF THREAD

(To be read and discussed in class)

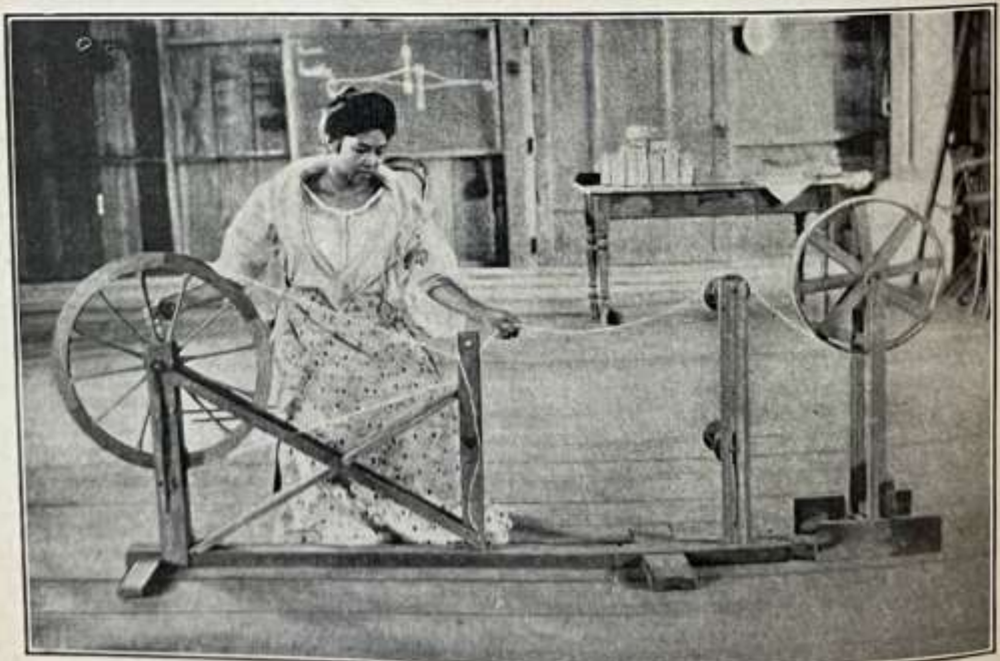
There are many kinds of thread; some coarse and others fine, some strong and others easily broken. They are needed by the dressmaker, the lacemaker, the embroiderer, the harnessmaker, the sailmaker, the weaver, the shoemaker, and the bookmaker, all of whom use thread in their work. In Europe and America thread is made by machinery in great factories, but in many Eastern countries it is still made by hand.

Have you ever seen thread made? Have you ever seen anybody twisting thread as he walked along the street or highway? In his left hand, he carried a stick forked at each end. This stick had loosely twisted cotton yarn wound over the forks. In his right hand he carried a spindle.

The spindle is a round straight stick, a little thicker than a lead pencil and about a foot long. It has a weight on one end to keep it steady, to keep the thread taut, and to make the spindle rotate. One end of the thread is attached to the spindle. The spinner sets the spindle whirling by rolling it with his open palm on his thigh, then he drops the spindle, and the yarn twists. When the yarn is twisted tightly, he winds it upon the upper part of the spindle and fastens it there, draws out more yarn and gives the spindle



Cotton spinning in northern Luzon.



Old-fashioned spinning wheel.

another twist. The process is continued until he uses all the yarn.

Why does he twist the thread? Does any one in school know how to make thread? If so, let us watch her while she works.

(NOTE.—If possible, the teacher should arrange for an expert spinner to come before the class for a few minutes and demonstrate the process, unless the girls are already familiar with it.)

EXERCISE 1

Bring to school as many different kinds of thread as you can find. There should be samples of cotton, linen, silk, abaca, and woolen thread brought in, as well as several different kinds of each of these threads.

Of cotton thread, bring machine thread, basting thread (this is the ball thread, commonly used for hand sewing), darning and embroidery cotton, and candle wick.

Of linen thread, bring that which is used for fine embroidery, for lace making, for shoe making, for harness making, and for book binding.

Of silk thread, bring sewing silk, buttonhole twist, embroidery silk, and thread that is used in weaving cloth.

Of abaca, bring twine, and the thread used for weaving cloth.

Of woolen thread, bring yarn and worsted such as used in knitting or crocheting shawls, caps, stockings, slippers, etc.

Notice how the threads are sold, whether by the ball, spool, knot, or skein, and how the numbers run. See if you can find out where the thread was manufactured.

(NOTE TO TEACHERS.—Much of the talk about textiles may be carried on as conversation while the girls are sewing.)

Examine each thread. Tell whether it is strong or easily broken, and whether it is loosely or tightly twisted.

In the notebook cut four tiny slits, and draw samples of the thread in and out and in and out again, so that they may stay in place. Beside each sample write:

(*a*) The commercial name of the thread.
(*b*) What it is made of.
(*c*) Where it was made.
(*d*) How it is bought (spool, ball, skein, knot; and price).
(*e*) What its principal uses are.
(*f*) Why it is well suited to that kind of work.

(NOTE.—The teacher should instruct her pupils here in such a manner as to insure their making these notebook entries in good English, with all the words correctly spelled.)

EXERCISE 2

(Language review)

Use in sentences:

skein
knot
spool
strands
wrapping
linen
silk
worsted
yarn
book binding
harness making
weaving
cotton
abaca

Tell what kind of thread should be used for Irish crochet. Give trade names and cost per ball and per box. What kind of thread should be used for pillow lace? Give trade names and cost. What kind of thread should be used for embroidery on pearline? On handkerchief linen? Give trade names and cost.

LESSON II

COTTON

(To be read and discussed in class)

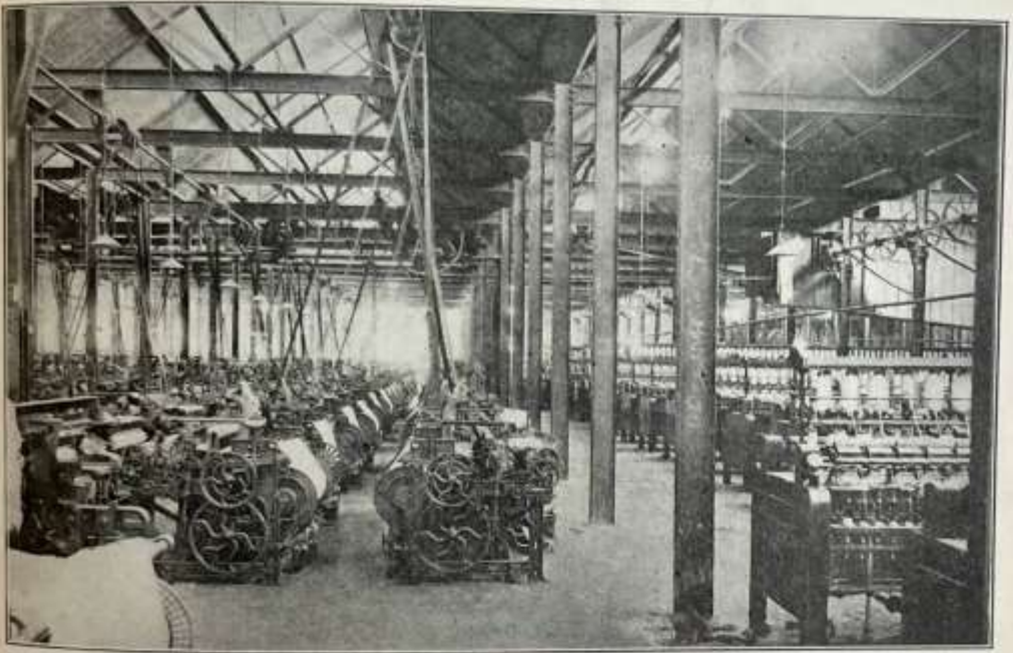
Cotton is the most important vegetable fiber in the world. The plant needs a warm climate and dry soil and grows anywhere in the warm-temperate and torrid zones. Most of the cotton used in the world is grown in the southern part of the United States and in Egypt.

In Europe and America, perhaps all cotton cloth is made by machinery in great factories; but here in the Philippines and in Asia much of it is still made on hand looms. It takes nearly as long to make a meter of cloth on a hand loom as it does to make an entire web in the factory. Everything that is made by hand costs more than that which is made by machinery. Hand work is always slow and expensive.

Have you ever seen people cleaning cotton and getting it ready to make into thread? The seeds are so entangled in the fiber that it takes one person all day to pick them from a half kilo. There is a machine called a cotton gin which does this work very quickly. It cleans three hundred kilos of cotton more thoroughly and more rapidly than a man can clean one kilo. This is one of the most useful machines ever invented, as it has reduced the price of cotton cloth so that poor people can afford good clothes. There was a time when cotton cloth cost as much as silk does to-day, and moreover, the cloth made then was not so beautiful as that which we now buy so cheaply.

There are many kinds of cotton cloth; some kinds are coarse, while others are fine and soft as silk. Some of the kinds in common use are tape, muslin, sheetings, mosquito-netting, canvas, calico, gingham, sateen, lawn, and pearline.

There are many qualities of plain cotton cloth on the market which differ much in width and in texture. Some are very narrow and some are very wide. Tapes, for example, are sometimes only a centimeter wide or less, while the width of sheeting and canvas is reckoned in meters. Some cloths are coarse, some fine, some thick, some thin, some bleached, some half-bleached, some unbleached, some firm, some sleazy, some stiff with starch, and some soft. But each kind of cloth has its own trade name and trademark, and is easily distinguished from every other kind. A housekeeper should know the names of, and be able to recognize, the kinds of cloth that are best for household purposes.



Interior of cotton mill.

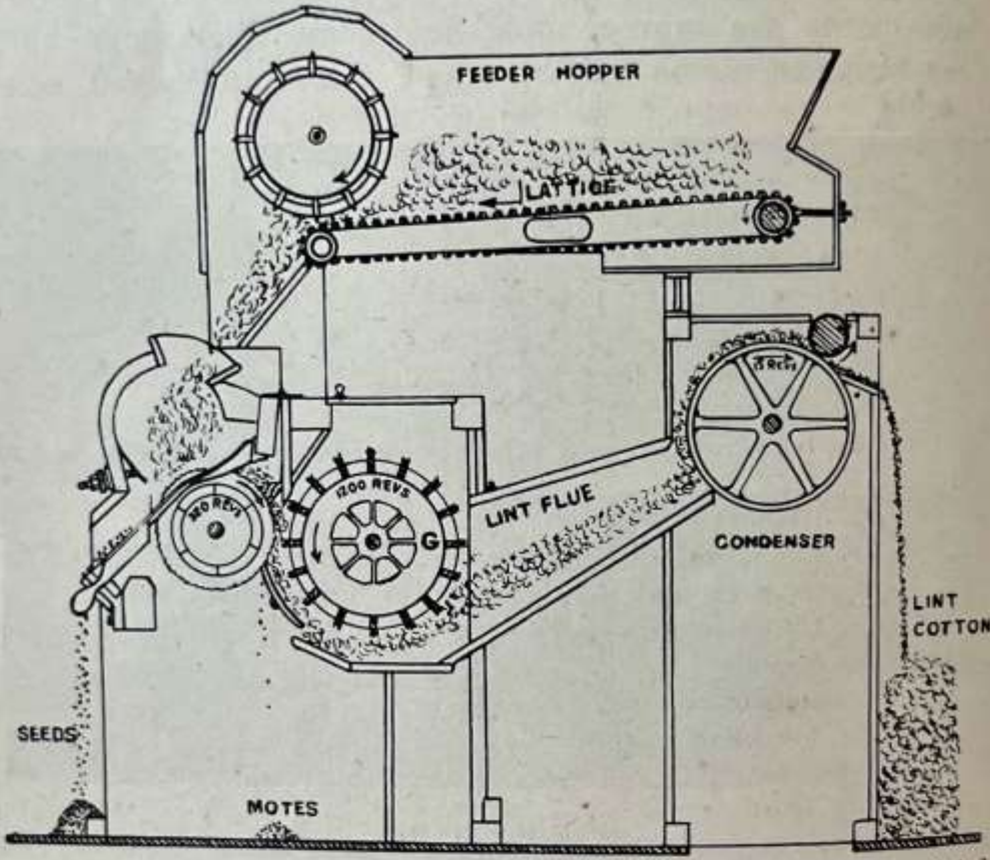
EXERCISE 3

(Study of cotton)

Bring an entire cotton plant to school; also some pods of the cotton tree (kapok). Describe the cotton plant. What part of it is of use to man? What use is made of cotton? Where does

much cotton grow? Where is much cotton cloth manufactured? What provinces in the Philippines manufacture cotton cloth? Are there any cotton factories in the Philippines? Name as many different kinds of cotton cloth as you can. Do we manufacture as much cotton cloth as we use? Do we raise cotton enough to clothe the people of the Philippines?

Examine a pod of cotton. Find the seeds. How are these taken out? Examine the fiber carefully. Compare the fiber of kapok with that of cotton. What is the difference? Why is not kapok used for cloth making? Of what use is kapok?



[From Ency. Brit.]

Modern cotton gin.

Examine the picture of the cotton mills. Examine the picture of the hand loom. Observe a weaver working with a hand loom. How long does it take to make a meter of cloth on the hand loom? In the factory?

EXERCISE 4

The girls should bring samples of cotton cloth, such as is used for underclothing.

Let them examine and tell any trade names known, such as "Fruit of the Loom," "Señorita," "Long Cloth."

Select a firm cloth of good quality.

A coarse, heavy half-bleached cloth.

A thin sleazy cloth.

A fine cloth of medium weight.

Buy enough of each kind to supply every girl with a small piece 10 by 20 centimeters. This cloth should be brought to class for the next lesson. When buying, be sure to notice the trade-mark on the web; and, if convenient, buy the piece with the trade-mark on it.

Compare the cloths as to width. As to quality.

Tell for what each kind is best suited.

What is the use of the trade-mark?

Divide the cloth among the class.

Mount these samples neatly in the notebook.

Write beside each—

(*a*) Its name.
(*b*) Its width.
(*c*) Its quality.
(*d*) For what use best suited?
(*e*) Its price per meter.

EXERCISE 5

Mount samples of different kinds of cotton cloth. Write beside each—

(*a*) Its name.
(*b*) Where manufactured.
(*c*) Its principal uses.
(*d*) Its price per meter.

Have samples of—

Unbleached muslin.
Fine bleached muslin.
Pearline.
Long cloth.
Calico.
Gingham.
Mercerized cotton.
Various native dress goods.

LESSON III

A STUDY OF NATIVE CLOTHS

(To be read and discussed in class)

The cloths manufactured in the Philippine Islands are remarkable for their gauziness and beauty. The most noted are jusi, piña, sinamay, and pinokpok.

Of these, piña is the most beautiful and expensive. It is manufactured from the fiber of the pineapple leaf, and although extremely fine, it is strong and serviceable and may be laundered many times if carefully washed in cold water. It is often very beautifully embroidered and is usually écru in color.

Jusi is manufactured from raw silk and usually has patterns of thrown silk woven in; but sometimes a little cotton or banana fiber is mixed with it. It is more gauzy than piña, but not so serviceable or so costly. It is made in many colors. At one time, it was extensively worn in the Philippines; at present it is manufactured chiefly for sale to foreigners who are taken with its gauziness and the novelty of its colors and patterns. It does not command an extensive sale as an export, because it is so thin and delicate that it is only suitable for evening wear in a hot climate, and because, being rather wiry, it does not fall easily into the lines required by American and European patterns.

Sinamay is the most common dress material and is used for clothing for both men and women. It is made of abaca or banana fiber, or of the coarsest pineapple fiber, and is serviceable and pretty. It is thicker and stiffer than piña or jusi. The best sinamay comes from Panay and the Bicol Peninsula. Another kind of cloth made from abaca fiber is called "pinokpok." It has a very close weave and after it is woven, it is beaten to make it soft and pliable. Sometimes a little cotton fiber is mixed with abaca when making pinokpok.

Piña and jusi are made chiefly in the Visayas. A large amount of jusi is also produced in Batangas and Rizal. Both Manila and Iloilo are good markets for all these kinds of cloth.

There is more or less cloth made of cotton all through the Islands. The Ilocanos make several kinds of cotton dress material, as well as thick cotton blankets and bath towels.

EXERCISE 6

Bring to school as many different kinds of native cloths as you can find, either samples of cloth or articles made of the cloth.

Examine carefully and decide what fiber each is made of.

Write a composition, telling everything of interest to you about native cloth and its manufacture.

EXERCISE 7

Bring samples of cloth made of sinamay, jusi, piña, pinokpok, and other native fibers. Mount these samples in the notebook and beside each write:

(*a*) Its trade name.
(*b*) Of what fiber it is made?
(*c*) In what province it was made?
(*d*) Its width.
(*e*) How bought, by the web or by the meter?
(*f*) Cost.
(*g*) For what best suited? Why?

EXERCISE 8

(Oral exercise)

Bring to school samples of different kinds of cloth of both foreign and domestic manufacture. These should include cloth made of wool, cotton, silk, linen and fibers of various kinds.

Tell the name of the cloth and what each is made of.

Ravel a bit of each, and examine the ravelings. Burn the ravelings, and watch them carefully. Compare the warp and woof threads in the same cloth, and when they are not alike, tell how they differ. Tell what you can of the raw material of which each is made.

Tell for what each cloth is best suited and why.

Tell the price per meter of each cloth.

Which are made of vegetable fiber?

What are the others made of?

LESSON IV

ABACA

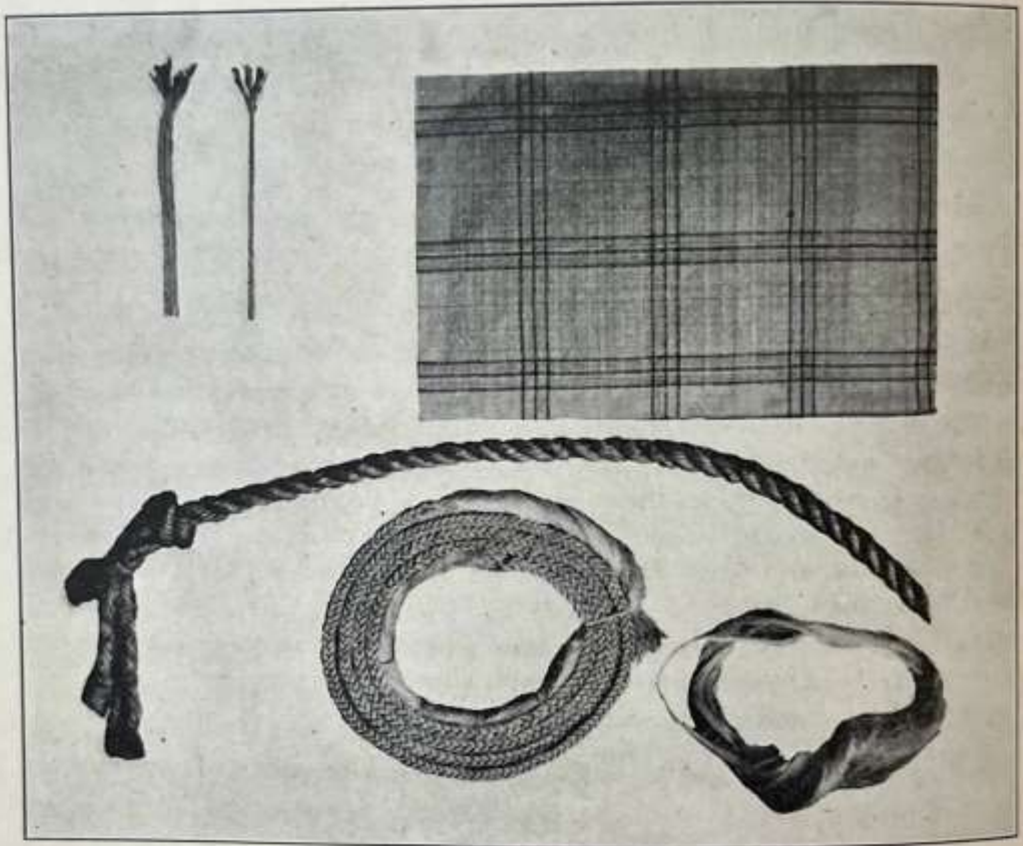
(To be read and discussed in class.)

The plant which produces abaca fiber belongs to the same family as the ordinary banana, and the fiber is often called "Manila hemp." There are several different varieties of the abaca plant, all of which bear inedible fruit.

The plant thrives best on the shaded slopes of volcanic mountains such as are found in Albay and Camarines; but it is grown on hilly lands throughout the southern islands.

From the fiber of this plant, cordage, hats, mats, and dress materials are made.

Formerly most of the abaca produced was used for rope making, the ropes being used especially on sail boats. Manila rope thus became famous all over the world. Nowadays, wire is being used more and more every year to take the place of rope. Consequently not so much abaca rope is manufactured as formerly, and what there is is not so carefully made or so strong. Some abaca fiber is exported to the United States, where it is made into rope and twine. Some is sent to Switzerland, where it is made into hat braid or woven directly into hats.



Products of abaca fiber.

In the Philippines, great quantities are made into dress materials, mats, and hats. The dress materials are called "sinamay" and "pinokpok." No abaca cloth is made for export, but much is manufactured for home consumption. Throughout the Philippines, as already stated, it is used in making clothing for both men and women.

The finest stuffs require so great an amount of dexterity, patience, and time in their preparation, and are consequently so expensive, that they cannot compete in the open market with cheap machine-made goods; moreover, the Philippine fabrics in general are stiff and do not adapt themselves gracefully to the European mode of dress.

The making of hat braid by machinery is now carried on to some extent in Manila. In the provinces near Manila, the tying of abaca fiber to prepare it for the braiding machine is an important and growing industry.

The fiber used in manufacturing is taken from the trunk of the plant. Several grades of fiber are derived from different parts of the same stem. The fiber is prepared in the following way.

The stem is first cut down and the leaves stripped off. Then the layers forming the stem are cut into strips and passed between a thick plank and the edge of a knife. The material is drawn through with one hand while the other hand presses heavily upon the back of the knife. This process is called "stripping." In this manner, the pulp is scraped off, leaving the fibers bare. This is hard, tedious work. Machines have recently been invented which strip as much abaca in an hour as many men, working in the old way, can strip in a day.

After the fiber is taken from the stem, it is placed in the sun to dry and is carefully protected from rain and dampness. When the fibers are dry, they are beaten lightly with sticks and again exposed to the sunshine. When bleached and soft and dry, the fibers are sorted according to their fineness. The coarsest and strongest fibers are used for rope making, and the finer ones, for mat, hat, and cloth making.

EXERCISE 9

Get some abaca, or saba, or maguey fiber for study in the classroom. Notice the length of the fibers. Test the strength of the fiber. Tell how it is taken out.

Does abaca grow near the schoolhouse? For what purpose is it grown? Visit the field and notice the difference between the abaca and the ordinary banana. If men are at work in the field, watch them take the fiber from the stem.

If there is no abaca field near the schoolhouse and there is saba or maguey, study these. They are very common fiber producing plants.

For what purpose, other than cloth making, are these fibers used?

Study the making of cloth from abaca fiber; and if there is a loom at work in town, visit it.

EXERCISE 10

Compare pinokpok with sinamay made from abaca fiber. Bring samples of these cloths to school and write a composition concerning them.

EXERCISE 11

Mount a little of the fiber, and a bit of cloth that is made of abaca fiber, and a bit of abaca twine at the top of a page of your composition book and write a short composition on abaca, saba, or maguey, summing up all that you have learned about the subject.

LESSON V

PINEAPPLE

(To be read and discussed in class)

The leaves of the pineapple plant contain long tough fibers, which are used in the manufacture of cloth. Pineapples are grown for their fruit in many warm countries, but outside the Philippines little use is made of the plant for cloth making.

Some of the fibers are fine as silk and others are coarse and strong; but the coarse ones may be divided into filaments almost as fine as a spider's web and still be strong enough to weave into cloth. From the finer fibers, piña cloth is manufactured; and from the coarse fibers, sinamay cloth.

Piña cloth is very fine, but is nevertheless strong and durable and may be laundered many times. It is écru in color and is often embroidered with great skill and taste. In the olden days, richly embroidered costumes used to sell for a great deal of money, often bringing ₱500 or more.

Unfortunately the work of making piña cloth is not carried on so extensively as in former years, nor is the quality of the cloth so good. This is due to the fact that people can earn more money making other kinds of cloth.

Sinamay cloth made from pineapple fiber is coarse and of a yellowish gray color. It is useful, but not beautiful. Housewives use it for a sieve or a strainer and also for stiffening the bottoms of women's skirts.

When pineapple plants are grown for the fiber, the fruits are not allowed to ripen, but are cut off, because cutting away the fruit makes the leaf grow larger. When the fiber is needed for cloth making, the leaves are soaked eight or ten hours to loosen the pulp. A board is placed upon the ground and the leaf is laid upon it, concave side up. Some one, often a woman, sits at one end of the board and, holding the leaf firmly, scrapes the surface with a clamshell or a piece of broken chinaware, beginning five or six centimeters back from the apex of the leaf, and scraping always toward the apex, until the leaf is reduced to the appearance of rags.

The fibers first exposed are the coarsest ones in the leaf and are used for making sinamay. They are taken out by inserting the thumb nail or a dull smooth peg under them, near the apex of the leaf, and pulling upward so that the fibers strip out toward the base. There are usually two layers of coarse fibers in a leaf. When these are removed, the leaf is scraped again and the fine fibers taken out. The fibers are washed in running water and dried in the sun. They are combed slowly and carefully like a woman's hair, sorted into four classes according to their length and degree of fineness, and tied together.

EXERCISE 12

Take a mature leaf from the base of a pineapple plant, soak it in water over night to loosen the pulp, and have it ready in class for a lesson.

Lay the soaked leaf upon a table or upon the floor, and scrape the pulp away with a bit of broken chinaware. Scrape toward the apex. Take out a few of the coarse fibers.

Under the coarse fibers you will find the fine fibers. Take out some of these and compare them with the coarse ones.

EXERCISE 13

Examine a piece of piña cloth. Where is piña made? Tell all you know about its manufacture and use.

Examine a piece of sinamay. Where is sinamay made? Tell all you know about its manufacture and use.

EXERCISE 14

Mount in the notebook samples of fine and coarse piña fiber and samples of piña and sinamay cloth.

Write on the opposite page a short composition on "The Pineapple."

LESSON VI

INTRODUCTION TO GARMENT MAKING

(NOTE TO TEACHERS.—The garments made in school should be practical and such as Filipino girls wear. This course does not aim to encourage school girls to adopt European clothes. The modifications of the native costume herein suggested are not intended as an innovation. The round length skirt hung from the belt and the well-fitting chemise have been used for years by the better-dressed girls, and the combination suit has developed naturally from the *mameluco*, which is in general use throughout the Islands.

It is suggested that the required garment making be completed before the year's work in embroidery or lace making is begun. The work required in plain sewing is practical and girls should not be allowed to dawdle over it. The garments are simple and should be finished in a reasonable length of time. If girls have had no experience in garment making, they should work with the simplest patterns possible to obtain.

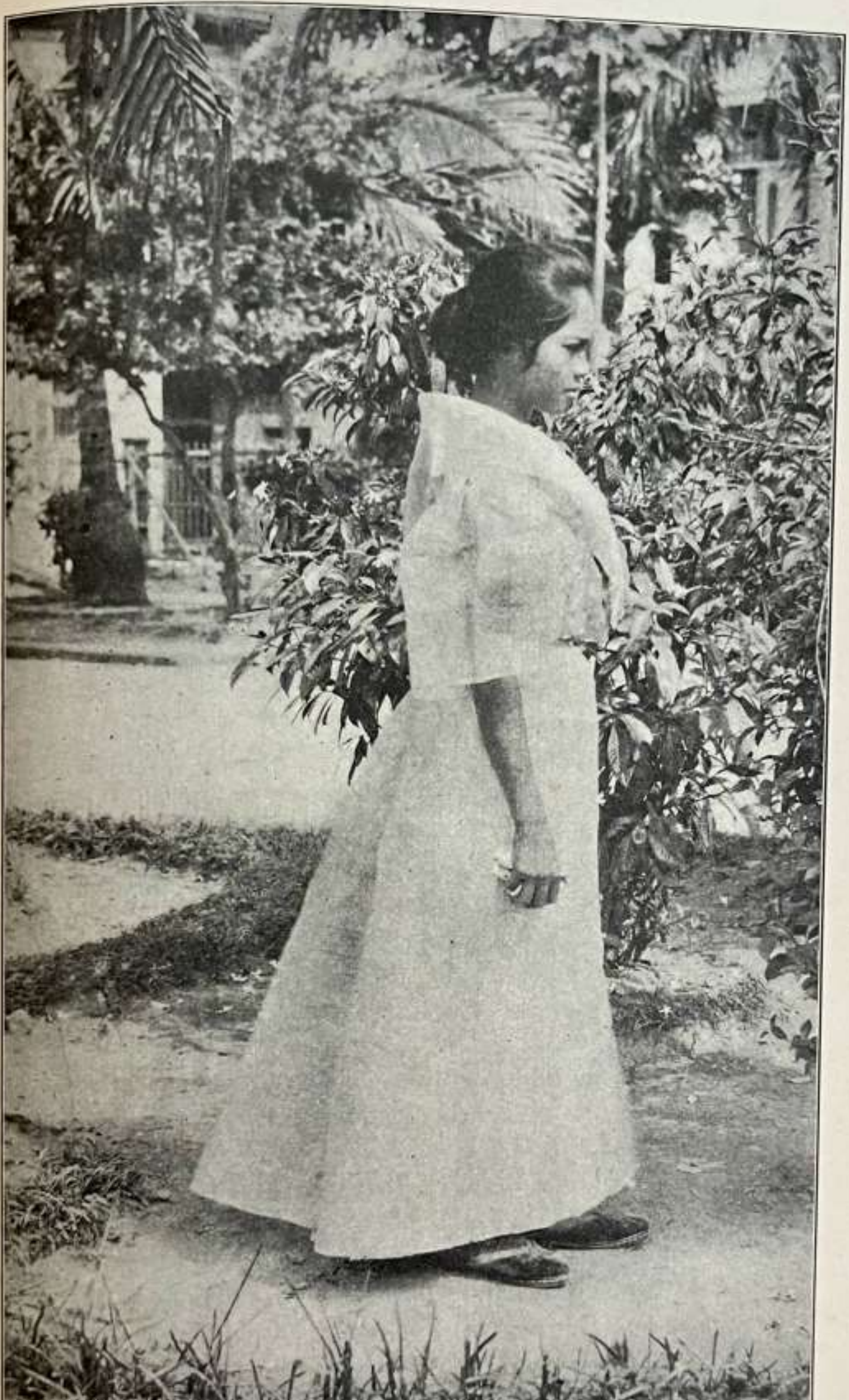
Filipino women consider the making of a plain skirt and camisa about eight hours' work. It is not expected that school girls will work so rapidly as dressmakers, but fifth and sixth grade girls are not beginners in needlework and many of them have had experience in garment making. A reasonable amount of work should be required of every girl each sewing period.)

USING PAPER PATTERNS

[Adapted from "The Dressmaker," the Butterick Publishing Company]

Some girls have better success in garment-making than others and the reason for this is not hard to find. They work carefully and prepare their work thoughtfully. In garment making, one makes haste slowly. The result of careless work is either an entirely worthless garment and a waste of good material, or a garment which, although it may be worn, is utterly lacking in style and beauty.

No one can cut "by guess" and get a well-fitting garment. It takes considerable experience and skill to take measurements and draft satisfactory patterns; but there are on the market standard patterns that cost but little money, are easy to use, and that make it possible for all who can sew to have well-fitting garments. Learning to use these patterns and learning where to get them and how to get the



Girl with round-length skirt.

right sizes should be a part of every girl's education. Each girl should have a set of her own that really fits her. The style in underclothes changes very little and once a girl has a set of patterns that meet her needs, they will be serviceable for a long time.

Every company that makes paper patterns publishes a catalogue or pattern sheet with pictures of finished garments cut by the patterns published. Beside the picture is the number of the pattern and the sizes in which the pattern is made. Also printed very plainly are directions for taking measurements and for telling what measurements are necessary to give when patterns are ordered.

Patterns may be copied, but unless the work is very carefully done and the copy is exactly like the original, the pattern is of very little value.

Each pattern should be kept in a separate envelope. Paper patterns that are expected to do long, hard service should, while new, be pasted upon cloth. This has to be done very carefully but it is quite worth while. The thinnest, cheapest Chinese organdie should be used, and after the cloth is spread with a very thin layer of paste, the pieces of the paper pattern should be fitted down smoothly on the cloth. It should be left perfectly flat on the floor or table with weights placed to hold it so. When dry, the pattern should be cut out carefully and every mark and perforation that is on the original pattern should be copied upon the cloth.

The easiest patterns for girls to work with are those that have a chart with an outline of each piece of the pattern and a drawing showing plainly where each piece belongs.

Our first lesson is with a seven-gored skirt pattern; we take this first because it is easiest and we all have had some experience in skirt-making.

Many girls know how to sew very well. Undoubtedly some make their own clothes, but if the work is examined we see that the clothes are not made so neatly as they could have been made, had time been taken to baste carefully and to plan the work well. Measuring and basting are very important parts of garment making, and it is worth spending extra time to do them well. Our school work is done to teach the best way of doing the common practical home needle work.

EXERCISE 15

Make sanitary bands.

EXERCISE 16

Study the pattern for making a woman's skirt.

(*a*) Take the pattern from the envelope.

(*b*) Examine the chart carefully.

(*c*) Compare the pieces of the pattern with the pictures on the chart.

(*d*) Look at the different pieces of the pattern for corresponding notches, and place the pieces of the pattern with the corresponding notches just touching.

(*e*) Study the markings and find out what they indicate. For example:

V Notches.
△ Triangle.
∘ Small eyelets.
○ Large eyelets.
○○ Double large eyelets.
○○○ Triple large eyelets.

(Markings of some sort are used in every pattern. The above signs are those used by one company.)

(*f*) Read the directions carefully and be sure that you understand them thoroughly.

EXERCISE 17

Cut and baste a skirt from newspaper. If space permits, all work together.

(*a*) Find the front gore of the skirt pattern.

(*b*) Notice the marking (for example, two large eyelets and the word "fold").

(*c*) Fold your material (newspaper this time) on the length, and carefully pin the pattern of the front gore so that the edge just touches the fold. (Be very careful, for the way in which the finished skirt hangs depends very much upon the way that this front breadth is folded and cut.)

(*d*) Indicate the notches carefully and mark the perforations in the material. Take a needle and colored thread and catch the material through the perforations, taking a small stitch on the pattern side. This, of course, sews the pattern to the material.

(*e*) Cut the threads and lift the pattern, leaving the line of thread in the material to mark the perforations. Twist the ends of each stitch together so that the threads may stay in place.

(*f*) **Find the back gore.**

(*g*) **Arrange it on the material and cut as carefully as the front was cut. Work together as indicated.**

(*h*) **Find and cut the side gores with as much care as was used in cutting the front and back breadths.**

(*i*) **Lay the pieces in the order in which they are to be sewed.**

(*j*) **Baste the newspaper skirt together.**

EXERCISE 18

Cut and make a skirt of plain material.

(*a*) **Read the directions on the envelope aloud and be sure you understand them perfectly.**

(*b*) **Cut and baste the skirt a second time from newspaper without any assistance from anybody.**

(NOTE.—Those who have made the slightest mistake must work with paper again. It is very essential to understand this pattern thoroughly, for when a pupil understands working with one pattern, she will have little difficulty in working with others.)

(*c*) **Those who have made no mistakes may now cut their cloth and make the skirt.**

In making the skirt, follow this plan:

1. **Arrange the cloth smoothly.**
2. **Place the pattern so that there may be no waste of cloth.**
3. **Cut.**
4. **Remove the paper pattern and put it away carefully.**
5. **Baste the skirt.**
6. **Try it on.**
7. **Sew the long seams.**
8. **Press.**
9. **Make the placket.**
10. **Make and put on the belt.**
11. **Finish the bottom.**
12. **Pull out the bastings and press the skirt.**

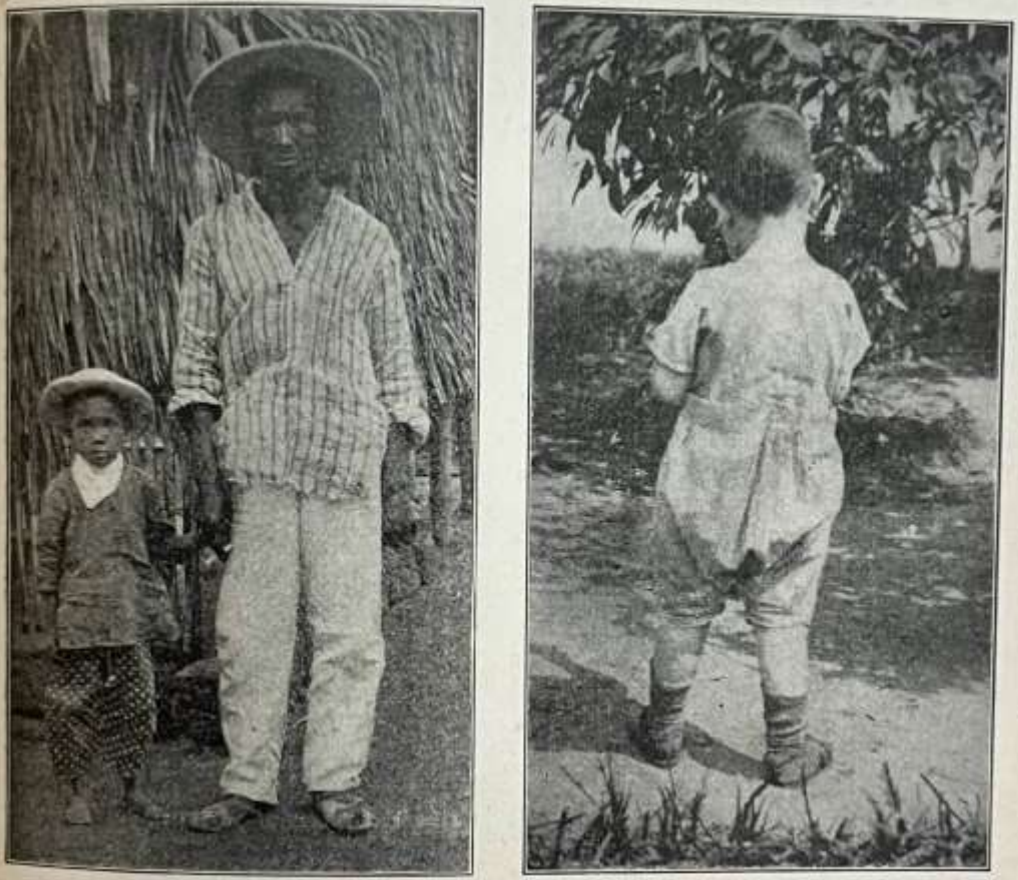
LESSON VII

MAKING CHILDREN'S GARMENTS

Boys and girls should wear clothing specially designed for children, not tiny copies of the garments worn by their fathers and mothers. When dressed in proper garments, children look better than when dressed like little men and women. They are more comfortable, too, for they enjoy more freedom.

All the garments worn by little folks should be made very simple, and the colors chosen for children's clothes should be suitable to child-life. When choosing colored goods, care should be taken to select fast colors that will look well after the garments have been washed many times.

One-piece dresses and romper suits are appropriate styles for small boys and girls alike. These suits may be made of either linen or cotton goods. Tiny-checked ginghams, small-figured percales, and white goods of light and medium weight are well-suited for children's garments.



Rompers as contrasted with tiny copy of clothing for adults.

Little children's clothing should afford sufficient warmth. All children need underclothing and nightdresses; especially do they need drawers, for children should at all times have their bodies decently and modestly covered. Underclothes may be made of any soft white cotton cloth. Long cloth or nainsook makes a very pretty undergarment, but *coco especial* is stronger and more serviceable for everyday use.

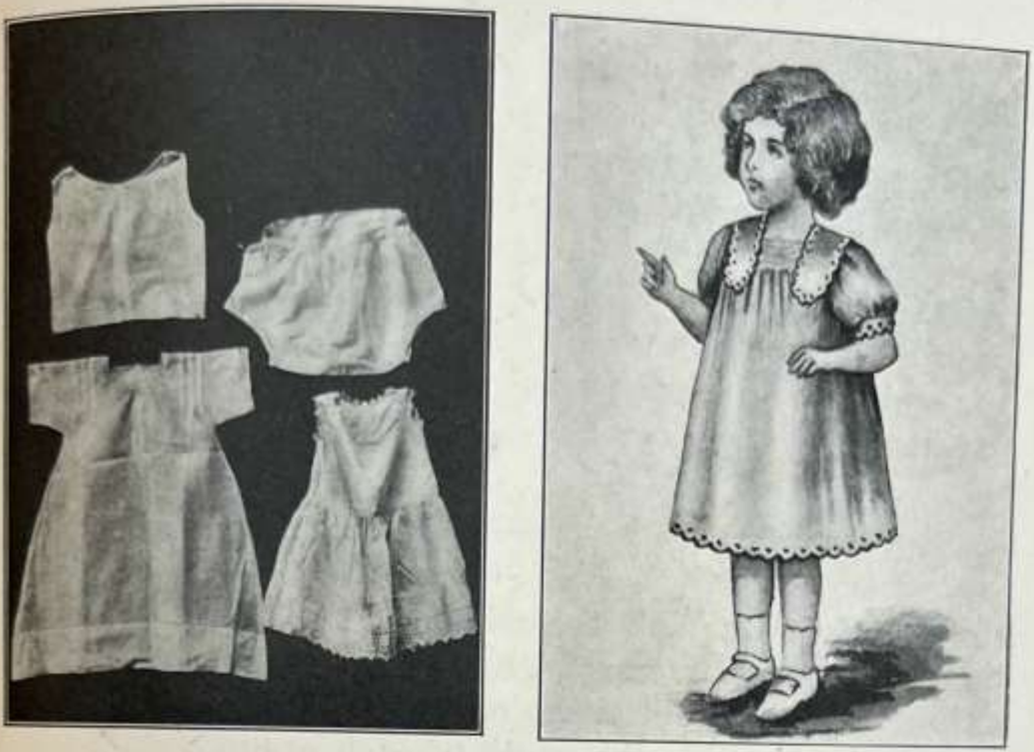
There is a particular daintiness and charm about children's clothes that are made by hand. However, fine and beautiful work may be done on the sewing machine; and the saving of time is so great that when there are a number of children to be clothed in a family, machine sewing is the only practical means of getting the work done.

One or more of the small garments required in the year's work should be made entirely by hand. The large amount of time necessary to make the petticoat and nightdress inclines one to resort to the machine. The cutting and basting of all the garments required for the year's work should be done in the schoolroom, but the long seams may be sewed on the machine at home.

Children dressed in children's clothes.

In making these garments, no raw edges should be left at the seams. French seams should be used in joining together the gores and the front and back portions of garments, while fell seams are to be used in piecing material together and wherever flat seams are desired.

Children's garments should have but little trimming; what is used should be dainty and should be most carefully placed. Children's undergarments are more suitably adorned with beautiful stitches than with fine lace and embroidery.

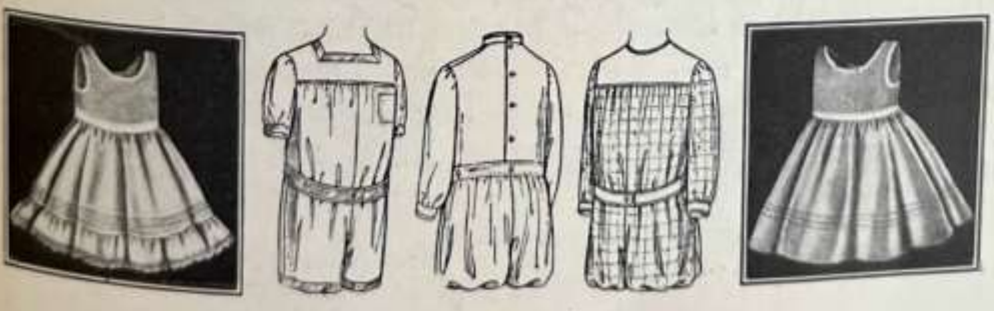


Various children's garments.

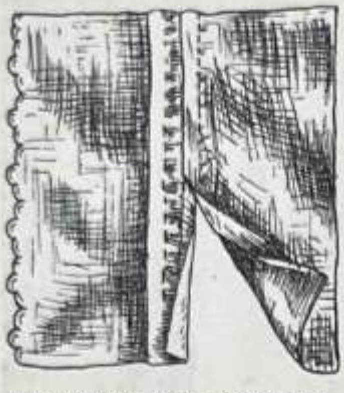
The underwaist should be absolutely plain. Special attention should be given to the making of the buttonholes. The drawers are best plain, for a child needs a great many pairs. They may however, have three tiny tucks at the bottom of each leg. Tucks should be marked with a measure, so that they may be of even width.

Tucks may also be used as trimming for children's petticoats and dresses. In all such cases, the beauty of the finished garment depends largely upon the arrangement of the tucks. Therefore, it is well worth while to understand the proper scheme of spacing, grouping, etc., to be observed in this form of trimming.

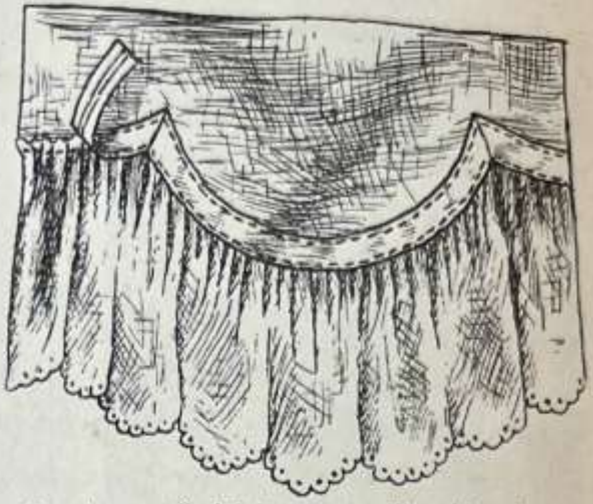
The space between the tucks, in turn, depends largely upon the thickness of the cloth. In ordinary muslin, the



Children's garments.



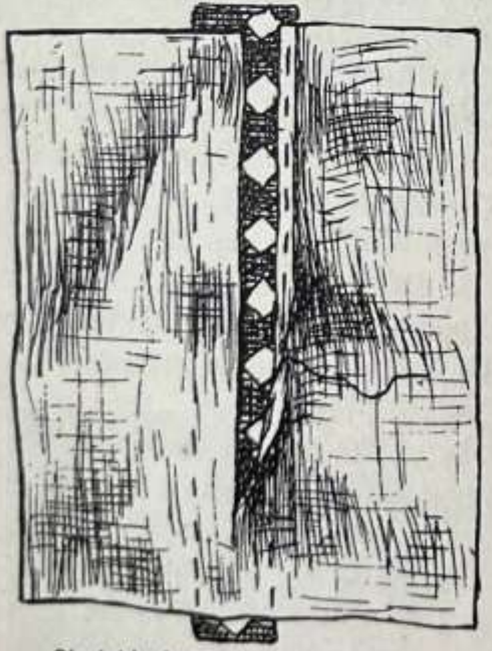
How to join embroidery in a tuck.



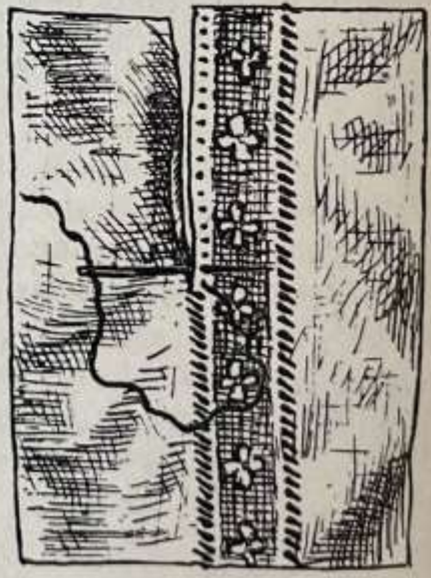
Covering a ruffle-joining seam with a bias strip.

space may be one-half the width of the tuck. When the tucks are used in groups with a space between the groups, an uneven number of tucks should be used and the space should correspond to the width of each group.

The petticoat allows for more trimming than any of the other garments worn by a child. If a ruffle is used, the gathering should be done with tiny running stitches, the ruffle to be divided into quarters, so that it may be placed evenly upon the garment. The gathers should be stitched



Straight-edge embroidery insertion.



Another way of making a straight-edge embroidery insertion.

so that they may lie nicely in place. One good way to cover the joining of a ruffle to the garment is to join the two on the right side and then cover the raw edges with a narrow bias strip, as shown in the illustration.

When a garment is trimmed with lace sewed to the edge of a hem, the lace should be whipped on with the tiniest of overhand stitches, so that the seam may be almost invisible.

An embroidery edging may be attached to a garment in various ways. One way is to use the edging as a facing. The plain material above the embroidery is applied in the same manner as the facing. To do this, first crease the edging and cut it at the depth it should extend beyond the garment. Baste the material along the crease, so that the seam may come toward the inside of the garment. Then stitch the seam and turn the edging down, fold in the raw edge at the top, and hem down as a facing. The facing should be no wider than is necessary to make a neat joining.

Embroidery may also be *joined* in a tuck. To do this, make several tucks in the plain material above the embroidery, if the plain part is wide enough. Then measure carefully the amount for the space between the tucks, the under part of the tucks, and the seam. Cut away the superfluous material and join the edging to the garment. Crease the tuck with the seam directly in the fold so that the raw edges may be encased in the tuck. When the material of the garment and the embroidery are similar, and when there are several tucks above and below the seam, the joining is imperceptible. (See illustration.)

Embroidery may be *inserted* by different methods. When a straight-edged insertion is used, the plain muslin may be cut away at each side of the embroidery. The material of the garment is then cut away under the embroidery, leaving a small seam, which is rolled and overhanded to the embroidery. If preferred, a small seam may be left on the insertion as well as on the garment and be put together by a tiny French seam. This is the finish most commonly employed, but embroidery may also be inserted by a fell seam.

To insert lace insertion on a garment, pin the lace in the position desired and baste down both edges of the insertion. If the insertion is narrow, the material covered by the lace is cut through the center; but if the insertion is wide, the material is cut away from underneath, simply allowing a seam on each side. The edge is turned in a narrow hem covering the line of the basting. Stitch the insertion close to the edges from the right side, at the same time catching through the material hemmed down.

Trimming may be *mitered* so that the joining may scarcely be seen. When working with embroidery, fold it over so that the crease comes exactly in the middle of the corner, taking care to match the pattern perfectly. Crease firmly, and cut on the creased line, taking out a triangular piece of the insertion. Place the right sides face to face and buttonhole-stitch the raw edges together with short close stitches. Lace may be mitered in the same way, but it should be cut between the cords, not across them. Overhand the edges together, putting the needle back the depth of two cords. If a stronger corner is desired, the lace may be mitered in a very tiny flat hem.

EXERCISE 19

Make drawers and waist to fit a child about four years old.

These little garments may be made separately or may be joined to make one garment. Whichever style is decided upon, a paper pattern should be procured and the printed directions that come with the pattern should be carefully followed.

The drawers and waist should be made very plain. Little children need many garments of this sort—enough so that they may always be dressed fresh and clean. A bit of lace about the neck and armholes and the bottoms of the legs is permissible and so are a few tiny tucks, one-fourth of a centimeter wide, or narrower. However, perfectly plain drawers and waists are dainty, finished, and in good taste. Little one-piece garments similar to the joined drawers and waist are much used as outside garments. They are usually made of colored cloth and are called rompers. Such garments are suitable for both little boys and girls. Look at the picture of the little boy wearing rompers and see what a practical garment this is.

EXERCISE 20

Make underskirt attached to waist to fit a child about four years old. Choose a simple pattern and work neatly, carefully, and rapidly, following exactly the directions given on the pattern envelope.

The petticoat may be trimmed with tucks and featherstitching, or with bias ruffles of the same material; or it may be trimmed with insertion, embroidery, or lace. Whatever trimming is used must be applied so that it really adorns the garment.

EXERCISE 21

Make a child's high-necked, long-sleeved nightdress. Follow carefully the directions for making it, as printed on the pattern envelope.

Little children often suffer from colds which might be prevented by the use of proper sleeping clothes.

EXERCISE 22

Make a dainty dress for a little girl about four years old. Choose a simple pattern and follow carefully the directions for making it, as printed on the pattern envelope.

EXERCISE 23

Make dress and bloomers to fit a little boy about four years old. Choose a simple pattern and follow carefully the directions for making it, as printed on the pattern envelope.

LESSON VIII

REVIEW—SEWING QUESTIONS AND ANSWERS

1. How should a girl prepare for sewing?

She should have a good needle, thread, and thimble, clean hands, and a clean dress.

2. How should she sit?

She should sit erect, with feet squarely upon the floor, and if possible, so that the light comes from over her left shoulder. She should never sit so that the light shines into her eyes, or try to do fine needlework in a poor light. The work should be held high enough to prevent bending the back and neck unduly.

3. What is a tape measure?

A tape measure is a piece of cloth used for measuring, with centimeters and parts of centimeters, or inches and parts of inches, marked upon it.

4. How is the thimble used?

It is worn on the middle finger of the right hand and is used to push the needle through the cloth.

5. Why is the thimble used?

If the thimble is not used, the sewer works slowly and the needle hurts her finger.

6. How may the needle be polished?

The best way is to polish it with an emery. However, it may be polished by rolling it back and forth upon the floor with the sole of the shoe.

7. How long a thread should be used?

A thread long enough to reach from shoulder to shoulder.

8. When may a knot be used?

A knot may be used only in basting.

9. How may the thread be fastened without making a knot?

The first stitch may be sewed three times over.

10. When should a fine needle be used and when a coarse one?

A fine needle should be used for fine material and a coarse one for heavy material.

11. How are threads and needles numbered?

The finer grades have the higher numbers.

12. What is basting?

Basting is sewing with long stitches to hold the work temporarily in place.

13. What is a seam?

A seam is a line of stitches joining two or more pieces of material.

14. For what is overhanding generally used?

Overhanding is generally used for sewing selvages together.

15. How many times is a hem folded?

A hem is folded twice.

16. What is the rule for the first fold?

It should be as narrow as possible, no matter how wide the hem is to be.

17. Why is the first fold of the hem important?

Because the evenness of the hem depends upon the evenness of the first fold.

18. What rule should be observed in making a narrow hem?

The second fold should be only wide enough to cover the first.

19. What may be used as a guide in folding a hem evenly?

A notched card, or a tape measure, may be used.

20. Should basting be above or below the line where the seam is to be sewed?

It should be just above. It should be evenly done, so that it may be an accurate guide for the sewing.

21. For what is "running" used?

Running is used chiefly for tucking and gathering. It is not strong enough for a seam.

22. How is cloth woven?

Cloth is woven by laying threads side by side and then running another thread over and under the first ones from edge to edge and back again.

23. What are the first threads called?

They are called the warp and always run lengthwise in a piece of goods.

24. What is the thread called that is woven into the warp?

It is called the woof; it runs across the goods and forms the selvages.

25. What does "selvage" mean?

It means literally "self-edge"; that is, the edge made in the weaving.

26. Which is usually the stronger, the warp or the woof thread?

The warp thread is usually stronger.

27. What is the name of the machine upon which cloth is made?

It is called a loom.

28. What carries the woof threads and weaves them into the warp?

The shuttle carries the woof threads and weaves them into the warp.

29. What is meant by "cutting on the bias"?

To "cut on the bias" means to cut diagonally, or from corner to corner.

30. Should cloth be cut folded or open?

If it will retain a crease, it should first be creased and then cut in the crease while open; otherwise it should be cut folded.

31. Why do we use a bias facing?

We use a bias facing, because it is strong and stretches readily, so that it may easily be made to fit a curve.

32. For what is the bias strip used?

It is used chiefly for binding and for ruffles.

33. Why should material always be cut through the selvage and not torn?

It should be cut and not torn, because to tear the warp threads at the selvage, where they are laid closely together, strains the goods and pulls it out of shape.

34. How should a seam of two bias edges be sewed?

It should be "felled" and a narrow strip of selvage, or a narrow tape, should be sewed into the seam so that it may not stretch.

35. How should a seam be basted for a fell seam?

It should be basted with one edge a little lower than the other.

36. How should a seam be basted for a French seam?

It should be basted with the edges even and on the right side of the goods.

37. How should work be prepared for gathering?

It should be quartered and notched.

38. Why is this done?

It is done to keep the fullness even.

39. How long a thread should be used for gathering? Should it be double or single?

The thread should be double and about a palm longer than the piece to be gathered.

40. How much should be allowed for fullness in a gathered ruffle?

One and a half times the length of finished top is generally considered a sufficient amount of fullness for a ruffle.

41. What should be the length of a buttonhole?

It should be equal to the diameter of the button.

42. How is the buttonhole prepared for working?

The edges are overcast.

43. For what are hemstitching and feather-stitching used?

They are used for ornamenting garments.

44. In making these stitches, what is the principal point to be observed?

The stitching should be even and regular.

45. What rule is to be observed when we are drawing threads for hemstitching?

Entirely finish drawing one thread before beginning to draw another.

46. What is darning?

Darning is weaving threads with a needle in such a manner as to fill in a hole or strengthen a worn place.

47. How should a large hole be prepared for darning?

A piece of net should first be basted over the hole; it should then be darned through the meshes.

48. What kind of thread should be used for darning?

A thread as nearly like the material as possible should be used; whenever possible, a warp raveling.

49. How should the grain or pattern of a patch run?

It should run so that it will exactly match the grain or pattern in the garment.

50. For what are tucks used?

Tucks are used either for ornament or to allow a garment to be lengthened.

EXERCISE 24

(Language review)

Learn to spell the following words and phrases and to use them correctly in sentences:

abaca
band
basting thread
beading
belt
bias fold
bleach
bleached
blind stitch
box plait
buttonhole stitch
calico
catch stitch
check
cluny
cotton
crease
crochet
crock
cutting
darning
darning cotton
dart
dress material
dye
embroider
embroidery linen
even
eyelet
fabrics
facing
fade
flounce
fold
gathering
gingham
gore
heading
hooks and eyes
insertion
inside
join
jusi
knit
knot
lace
lengthwise
loom
machine
machine cotton
manufacture
match
measure
medallion
mending
meter
muslin
needle
notched
patching
percale
pillow lace
pin tucks
piña
placket
plaid
puckered
purl edge
ravel
repair
reversible
right side
rip
ruffle
sample
scallop
scissors
selvage
sew
sewing silk
sinamay
shuttle
spin
spool
stamp
straight
stretch
stripe
tape
tear
thimble
thread
thumb
trade-mark
tucks
twine
twist
unbleached
unite
Valenciennes
vara
veil
vertical
waist
warp
weave
width
woof
wool
worsted
wrong side
yard
yarn

GRADE SIX

LESSON IX

WOOL

(To be read and discussed in class)

Wool is the soft hair-like covering that grows on most domestic sheep. The wool which grows on the sheep of the Philippines is of comparatively no value. They do not need to be protected from the cold, as in a temperate or cold climate. Therefore, their coat, instead of being soft, thick, and warm is more like coarse hair.

Sheep were the first animals domesticated, and people knew how to make woolen cloth long before they had learned anything about either silk or cotton. Cloth made of wool is thick and warm. It is used chiefly for clothing and blankets by people living in temperate countries. While woolen cloth costs about the same as silk, it is much more serviceable. Most of the raw wool supply of the world comes from South America, Australia, and South Africa; but most of the woolen cloth is made in Europe and the United States.

EXERCISE 25

Compare a bit of cotton fiber with a bit of wool. Tell in what respects they are alike, and in what respects different. Tell which is the finer, softer, warmer, lighter, tougher.

Twist a little of each into a coarse thread and see how strong and tough and pliant these substances are.

Test each in the flame of a candle. Notice that the cotton fiber flames easily, but that wool curls up and becomes crisp. Notice the difference in the smell of the two when burning.

Compare cotton flannel and woolen cloth, and find out in what respects they are alike and in what respects they differ.

EXERCISE 26

Write a composition about wool. Fasten at the top of the first page of the composition a sample of wool or woolen cloth, of yarn, and of worsted.

LESSON X

SILK

(To be read and discussed in class)

Silk is the finest of all the fibers used for the manufacture of cloth. This fiber is spun by a little worm much like the smooth green worms we have often seen swinging by threads from trees and fences. We know that those common worms change into moths and that they wind themselves up in a little package of fine filmy thread, which they spin when this wonderful change from worm to moth begins. The silkworm prepares his cocoon in the same way, but the thread that he spins is very strong and can be unwound and made into cloth.

The silk comes from two little openings in the worm's head. At first it is like gum, but it hardens into a fine elastic fiber. With a motion of the head, the worm throws the thread around his body from head to tail until he is entirely enveloped. The cocoon is made of one long fine thread. The worm's body grows smaller and smaller as he spins, and the thread grows finer until at last he has spun out most of the substance of his body. While the worm is in this cocoon, he changes into a moth; and if left to himself, when the proper time comes he will eat his way out of the cocoon and ruin the fiber. But the silk grower allows only a few of the worms in the best cocoons to change into moths for a new supply of worms. Most of the cocoons are baked at a low degree of heat. This destroys the worm but preserves the silk. The silk of which the cocoon is made becomes the silk of commerce.

Silkworms are native to Japan and India and are found in those countries in both the natural and the cutivated state. In China, Japan, India, and in southern Europe, many people are engaged in the silk industry.

The Chinese were the first to manufacture silk cloth, and they kept the process a secret for many years. In olden times, silk in Europe was worth its weight in gold. Now Europe and America manufacture great quantities of silk cloth.

Experiments have been made with silk culture in the Philippines, and it has been found that the worms do very well. When the silk industry is better developed here, it will bring large returns.

The worms require a great deal of care. They eat a great deal and they must be properly fed; they must also be kept warm and dry; those that get sick must be taken away from the others; and the cocoons must be baked at just the right heat. However all this work may easily be done by women and children and it pays very well. It is estimated that a girl could easily raise ₱200 worth of silk in a year.

EXERCISE 27

Examine silk cloth.

Silk that is thick and soft may be crushed in the hand and easily smoothed out again. Stiff silk crumples and cracks and does not wear well. Cotton is often prepared so that it looks like silk.

Ravel a bit of silk and a bit of mercerized cotton; compare the ravelings and learn to distinguish cotton from silk.

Silk is often mixed with wool, cotton, or linen in manufacturing cloth.

EXERCISE 28

If possible, get some silkworms and silk cocoons and bring them to school. If you cannot get the silkworms, find some other worm that spins a thread and also a cocoon. Look for cocoons in shrubs and trees and fences. Bring with the worms some of the plant upon which it feeds. Put the worm into a box or a large-mouthed bottle with a mosquito-net covering, and watch what changes it undergoes. The box must be kept clean, fresh leaves must be put in every day, and there must also be a twig for the worm to attach himself to.

Why do men make no use of the spider's web, or of the thread spun by these common worms?

EXERCISE 29

Mount samples of different kinds of silk in the notebooks, and write a composition on silk.

EXERCISE 30

Make sanitary bands.

LESSON XI

USING PAPER PATTERNS FOR MAKING WOMEN'S CLOTHES

One set of ladies' underclothes patterns and two dress-skirt patterns should be provided for class work. Each girl should be encouraged to own such patterns as she needs.

A set of patterns for Grade VI work should consist of—

- Chemise or loose princess slip.
- Drawers or combination suit.
- Gored underskirt.
- Nightdress (preferably one with high neck and long sleeves).
- Dress skirt (round length) for school and business wear.
- Dress skirt of prevailing fashion for evening wear.

The *chemise* should be carefully planned as to material, trimming, and design; for it shows very plainly under the thin camisa. For a stout, short-waisted figure, a pointed neck both back and front will be found more becoming than a round outline. Care should be taken not to have the garment too full in back or front. The gathers should be carefully distributed and stroked so that they may lie flat. Ruffles extending across the front of the chemise will give a better figure to a slight person and will serve to fill out the camisa.

A dainty chemise may be made of either long cloth or *coco especial.* The under-arm and shoulder seams may be stitched with either a fell seam or a French seam and the neck and arm-holes finished with embroidered scallops. A monogram, or a very little embroidery, makes a pretty trimming; large designs and machine embroidery are not in good taste and should not be used on garments made in school.

If a plainer chemise is desired, the top may be hemmed and beading and lace overhanded to it as a finish. A very narrow bias facing may be basted around the right side of the armhole, stitched, basted over the wrong side, and stitched again. Care must be taken in basting on the bias strip to give plenty of fullness around the curve of the armhole so that it may not draw when turned over. The lace edge should be sewed upon the armhole after it is faced.

There are many styles of *drawers* from which to choose a pattern. The circular drawers fall quite full about the knees and may be worn in place of a short petticoat. The drawers and waist joined make the usual combination suit, but a combination suit may be made either of waist and drawers or of waist and petticoat. The fitted waist used in a combination suit gives to a stout-person's clothes a much more stylish appearance than can be obtained from fitting a dress over a chemise.

The *petticoat* should be cut from a five or seven-gored skirt pattern. Much attention should be given to its fit about the waist and hips. The belt should be cut lengthwise of the goods, six centimeters wide and three centimeters longer than the waist size. The amount allowed for the overlap should be measured off the belt and the remainder divided in half. Then the belt should be pinned to the wrong side of the skirt with the center of the belt at the center of the gore.

The petticoat should be held loosely while the basting over the hips is being done. The fullness at the back should be arranged according to the pattern instructions. Care should be exercised not to take the belt measure too tight.

The *nightdress* may be made of muslin, long cloth, dimity, or cross-bar material and trimmed with lace, embroidery or handwork. The joinings should be made with a French seam, and a rather wide hem should be turned up at the bottom. The sleeves should be gathered twice at the top. They should be basted in the armhole with the seam toward the outside and should be stitched close to the edge. Then the seam should be turned and the sleeve stitched again, having the finished seam at the inside of the garment. Care must be taken that the gathers in the top of the sleeve are evenly distributed between the notches as marked on the pattern, and also that the gathers in the sleeves are drawn down straight from the first stitching.

The *dress skirt* for school and business wear may be made from a plain five or seven-gored skirt pattern or from a circular skirt pattern. The finished skirt should hang evenly and should clear the ground well.

The *evening skirt* should ~~be~~ as long as fashion dictates and may be made of whatever material the pupils choose.

EXERCISE 31

Make a chemise or loose princess slip to fit yourself.

When choosing a chemise pattern, select one which is almost plain across the back and be careful to distribute the gathers properly in the front. One's dress looks more stylish fitted over a princess slip than over a full shapeless chemise.

EXERCISE 32

Make a pair of drawers or a combination suit to fit yourself.

The combination suit is cooler than the drawers and chemise. It also gives to the outside clothing a desirable style impossible to secure when the dress is fitted over a full and shapeless chemise.

EXERCISE 33

Make a nightgown to fit yourself.

This garment may be a chemise nightgown or a high-neck long-sleeved nightgown and may be trimmed with lace, tucks, embroidery, hemstitching, or whatever the fancy dictates. It should be cut from a carefully selected pattern and should be made according to the printed directions that come with the patterns.

EXERCISE 34

Make a gored underskirt to fit yourself. Trim it with lace, embroidery, tucks, or ruffles. Choose your own pattern. If you have had experience in making plain garments, make this one more elaborate. Try to make it without any assistance from the teacher or any other person.

EXERCISE 35

Study a fashion sheet and with the teacher's help select a skirt pattern. Get your correct measurements and write a letter to a Manila firm ordering the pattern. Follow the usual rules governing letter writing.

EXERCISE 36

Make a round length dress skirt suitable for school or business wear.

LESSON XII

CUTTING A SKIRT FROM FIGURED GOODS

[Adapted from "The Dressmaker," by the Butterick Publishing Company]

In cutting a skirt of plaid, place the chosen line of plaid exactly in the center of the front gore, or if the skirt is circular, directly down the center of the front. After the front is cut, the uncut material is laid upon the table and the cut front placed alongside, near the edge, with the crosswise as well as the lengthwise strips matching exactly.

Place the pattern of the side gore upon the material matching the front, and if the position is correct, cut; otherwise move the front gore to the next block or plaid on the material. This may necessitate some waste, but there is no alternative. Frequently in plaid or figured materials, the pattern will have to be moved a fourth of a meter or more to a corresponding line of figures before the correct position may be found. Cut each gore after the manner directed, baste, and stitch.

On account of the waste necessary in matching, more material must be allowed for making a plaid dress than for making one of plain goods. Care and attention are necessary in making up plaids, for no costume is well put together unless the different positions are carefully matched. Striped, checked, and plaid materials may be used effectively in a circular skirt with a bias seam down the front. A two-piece pattern is suitable in such a skirt and full directions are given in the pattern instructions showing how to place the pattern upon the material in order to obtain a desirable bias.

In cutting a skirt of plaid or stripe, it is better to cut one side first; then removing the pattern, lay the sections just cut upon the material, and carefully match the plaid at all points before cutting the opposite piece. When both sides are joined, the prominent lines in the plaid should have a mitered effect.

Figures and flowers should also be perfectly matched. Unless one line of flowers is up and the next down, as usually occurs, one position will have to be selected for the top. Generally the stems of the flowers run downward. When cutting a garment where several breadths of material must be joined, as in a circular skirt, it is most important that the pattern or figures on the material should be matched. Often this cannot be done when the breadths are simply joined at the selvages. If the skirt is to have no seam at the front, cut the front gore first by folding the goods lengthwise through the center and then laying the front edge of the pattern even with the fold. If there is a decided figure in the goods, fold the front breadth so that the figures may balance and not make the skirt look one-sided.

Lay the pattern cut upon the table; place the front gore upon it and match the figures of the goods at the edge of the second breadth to those at, or near, the edge of the first. It will sometimes be necessary to lap the second breadths considerably over the first, in order to find the corresponding figures. Turn under the edges of the second breadth and pin them to the first. The gore may then be cut according to the pattern. Proceed in the same way to join the breadths for both sides of the skirt.

Sew the breadths together from the outside by slipping the needle along inside the folded edge of the upper breadth and then taking a stitch in the under breadth. When the skirt is turned wrong side out, it will be found that the sewing from the right side forms the basting of the seam. The material will give more and match better if the selvages are cut off.

LESSON XIII

LENGTHENING AND SHORTENING SKIRT PATTERNS

Measure the length of your skirt at the center from the waistline to the floor and compare with the corresponding measure of the pattern.

To *shorten* a gored skirt pattern, lay a plait straight across each gore of the pattern about 17 cm. below the upper edge. If the gores are cut with one straight edge, measure at the straight edge; or, if both sides of the gores are bias, measure along the line of perforations that indicate a lengthwise thread of the goods. If the figure is full, the slope of the gores at the bias side should be filled out from the folded plait to the hip; but if the figure is slight, this little extension may be taken off.

To *lengthen* a gored skirt pattern, cut each gore straight across 16 cm. below the hip-line. The two pieces are then laid upon a large piece of paper and separated, the space between them giving the necessary length to the skirt. They are then pinned in place. If, as is sometimes the case, it should be necessary to alter the length of a skirt as much as ten or twelve centimeters, it is best to take out half of the amount of goods below the hips as explained above and to take the remaining half off at the lower edge of the skirt.

A valuable aid in cutting correctly is to place a ruler or yard stick upon each piece of the pattern with its edge touching each of the perforations that indicate the way the pattern should be on the goods, and then make a heavy pencil mark along the line found by the ruler.

This question of the thread of the goods is a very important one. Some skirts are cut with one straight and one bias edge on each gore; others have two bias edges. This all depends upon the design of the skirt. The only safe plan to follow is the line of perforations marking the thread of the goods on the pattern. Measure from each end of the line to the selvage of the goods and move the pattern until both ends of the line are the same number of centimeters from the edge.

EXERCISE 37

Take such measurements as are necessary preparatory to making or ordering a pattern for a chemise, a petticoat, and a baby bonnet.

EXERCISE 38

Select a second skirt pattern from a pattern sheet. Take necessary measurements and write a letter ordering the skirt pattern, thread, stiffening, and cloth from an inclosed sample to be used in making the skirt.

EXERCISE 39

Make a long evening skirt of the prevailing Filipino fashion.

EXERCISE 40

From a paper pattern of a skirt that is too large for you, cut a pattern of the correct size.

EXERCISE 41

From a paper pattern of a skirt that is too small for you, cut a pattern of the correct size.

PART IV

HYGIENE AND HOME SANITATION

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PART IV

HYGIENE AND HOME SANITATION

GRADE FIVE

LESSON I

HOW TO BE WELL AND STRONG

(To be read and discussed in class)

Sickness is caused by careless living and by breaking the laws which govern health. Health depends first of all upon cleanliness. If we have clean air to breathe, clean food to eat, clean bodies, clean clothes, and plenty of sleep and exercise, and if we have inherited clean blood, we may be reasonably sure of having good health.

There are a few great laws of health which we must observe if we expect to be well and strong and if we wish to enjoy living and to get the best out of our lives. First of all, we must eat wholesome food; that is, food that makes good red blood. It is not enough to simply fill the stomach with anything which will satisfy hunger. Our food makes our blood, and our blood builds up and restores our bodies. All the strength of our bodies and much of the strength of our minds comes from the food we eat. One who has not plenty of wholesome food to eat has a weak, thin body, and no power of resistance. He is often sick, and when no sicker than a better-nourished person, he will die, while the well-nourished person will recover. The poorly-nourished body can not be strong; neither can the brain in such a body do its best work.

Vegetables, fruit, fish, eggs, milk, and meat are all wholesome foods. Corn and beans are especially wholesome vegetables. Mongos and beans do the same work in the body as meat and fish and are cheaper. Eggs are also as nourishing as meat and in some parts of the Philippines they cost much less.

Unwholesome food is food which does not make good red blood and which is likely to make sick the person who eats it. Green fruit, wilted vegetables, fish which has been dead a long time without being cured in some way, meat from animals that have been drowned or have died of sickness, half-cooked rice, very hard corn, and many other things frequently used as food are not wholesome. Coffee is not a food and does not nourish the body. Like water it is a good drink, but coffee alone is not a good breakfast for one who has to study or work until noon.

People must learn that their first duty is to take care of their health. One of the ways of doing this is to eat three wholesome meals every day. From bedtime until noon the next day it is too long to go without food. To do so causes headache and indigestion and weakens the whole body.

Clean air is just as necessary to health as plenty of wholesome food. Breathing foul air makes the lungs weak and may cause tuberculosis. There are many things which are constantly poisoning the air. The result is plainly seen in the thin, sick, coughing people all about us. Air that smells bad is not fit to breathe.

In order that the air we breathe may be kept clean and pure, we must take care to dispose of everything that could possibly poison it. This means, aside from the ordinary rules for cleanliness of the house, that we must not spit out of the windows; that sheep, goats, pigs, and other animals must not be kept under the house; that sand or ashes must be put into the vault every day; that smoking lamps must not be allowed to remain burning in the sleeping rooms at night; that proper receptacles must be provided for all kinds of garbage and offal; and that those receptacles must be cleaned daily.

In order that well people may stay well, sick people must not be permitted to spit upon the floor, or in the streets, or in the market place. This habit causes thousands of deaths every year; yet very few people make any attempt to stop it. The matter which is coughed up and spit out soon dries and takes the form of fine powder. Then it floats about in the air as any other dust. This dust contains dangerous germs and enters the body with the air breathed. When young people realize the danger arising from the habit of spitting; and when they do their part toward making the people in their homes realize it too; then, and not until then, will the practice be stopped.

Public opinion is the greatest force in the world for reform, and public opinion is simply what we and our people believe. No law can accomplish all of the good for which it is intended until the people feel the need of such a law.

Another source of sickness in the home is the fly. There is danger from this source, no matter whether the dumping ground of the town be near at hand or a mile or so distant; for where there is filth, there will always be flies. These go from place to place on goats, horses, carabaos, and persons, and are often carried for miles. They find their way to the food in the market, to clean homes, and to the tender skins of little babies. They carry on their bodies the filth in which they breed. They spread cholera, fever, sores, and many other terrible diseases; and because of them, many babies die every year. The filth by the riverside may be just as harmful to your family as if it were under your own kitchen.

EXERCISE 1

Review. The answers should first be given orally, then written.

What causes sickness?

What are the laws which govern health?

Which of these laws may be kept entirely by our own efforts?

Which depend upon those of our neighbors?

How do our bodies show:

(*a*) When we are not getting enough fresh air?
(*b*) When we are not bathing often enough?
(*c*) When we are not getting plenty of sleep?

What is to be gained by eating three wholesome meals every day?

Use the words "wholesome" and "unwholesome" in sentences.

What is meant by "easily digested?"
Name some foods that are hard to digest.
Name some foods that are easily digested.

Write a menu for one day's food, dividing it into the accustomed meals. The cost of the daily food in the menu should not exceed ₱0.20 for each person.

Describe a proper sleeping apartment.
Why should a sick person have a room by himself?
Explain fully why the habit of spitting is injurious.
Explain how flies cause sickness.

LESSON II

HOW TO BE WELL AND STRONG (Concluded)

(To be read and discussed in class)

Another thing necessary to good health is plenty of refreshing sleep. We must have eight hours of sleep every night if we are to put our best efforts into study or work of any kind. If all housekeepers were able to realize how much good health depends upon sleep, they would make a greater effort to have airy bedrooms, plenty of bed clothing, and all the right conditions for this form of rest.

Exercise, too, is necessary for our well-being. Any part of the body that is not used soon becomes weakened and out of order. Muscles increase in size and strength according to the use made of them. For example, the washerwoman uses vigorously the muscles of her arms and back, day after day; consequently those muscles are strong and she has much endurance. It would be impossible for a teacher to do the same work as the washerwoman, for the teacher's muscles have not been trained to it.

Exercise strengthens the whole body and makes all the organs more vigorous. When we take exercise, the heart beats more vigorously and carries more blood to the tissues. Exercise causes the lungs to draw in more fresh air and to get rid of the impure air. The skin, the lungs, the kidneys, and the intestines thus have more work to do in order to get rid of the increased waste matter; and because of this fact, they become stronger and more vigorous.

Walking is one of the best forms of exercise. A pupil who has a brisk walk to school every day will not suffer from want of exercise. Dancing, baseball, basketball, military drill, swimming, and horseback riding are all good forms of exercise and they all tend to make the body graceful. Exercise, especially in the form of games, helps to make one think quickly and to keep cool in time of excitement or danger.

We should learn to walk gracefully, to carry ourselves correctly, to let the weight fall as much as possible upon the balls of the feet, and to hold the chest high and the shoulders well back. We should not lounge along. Each step should be brisk and should indicate a real desire to arrive somewhere. We must walk with vim if we are to get any benefit from the exercise. A brisk, cheerful half-mile walk every day will do much to keep us well and strong.

One form of healthful exercise.

One of the important things upon which health depends is the habit of proper breathing. A person may live for weeks without food and for days without water, but he can live only a few seconds without air. If we breathe correctly, and if the air which we breathe is pure, we shall not be troubled with colds or sore throat; and, best of all, the germs of tuberculosis cannot then thrive in our lungs.

If we carry ourselves with the chest out and the shoulders thrown back, the lungs are given more room, and it is easy to fill them with air. It is very important to breathe deeply and to entirely fill both lungs. Many girls have the habit of fastening their skirts very tight. A girl so dressed can not take a full deep breath. She breathes with only a part of her lungs, and is certain to have bad blood and poor health.

Another thing which we must learn is to breathe through the nostrils, and not through the mouth. The mouth is not provided with a filter as the nose is. When a person breathes through his nose only, the dust and germs in the air are filtered out, so that the air is pure, or nearly pure, when it reaches the lungs. But if a person breathes through his mouth the dust and germs go direct to his throat and lungs, causing sore throat and disease. Moreover, a nose that is not used is subject to catarrh and many other diseases. No part of the body can be kept well if it is not allowed to perform the work for which it was intended. Let us now practice some of the special breathing exercises.

EXERCISE 2

Stand correctly. Place the hands upon the sides just above the waist line. Close the mouth. Fill the lungs, taking in the air through the nose. Then while counting ten slowly, blow out the breath through a tiny opening between the lips. Close the mouth and repeat, counting ten while inhaling and ten while exhaling. Continue this exercise for two minutes and repeat four times every day.

EXERCISE 3

Take a deep breath, causing a full strong expansion of the sides; feel that the lungs are well filled. Hold the breath while you count five, then blow it out in short quick puffs through a small opening between the lips. Keep on puffing out the breath as long as possible; then rest. Continue this exercise for three minutes.

Repeat this five times each day.

The apexes of the lungs are parts that are very little used; and, since they are so often the places of attack from tuberculosis, the good of practicing this exercise is apparent.

EXERCISE 4

(This simple exercise cleans the nasal passages, relieves catarrh, prevents headache, and helps to do clearer and better thinking.)

Close the left nostril with the finger and exhale through the right; then close the right nostril in the same manner and inhale through the left.

Repeat four times and reverse. Do the exercise as many times every day as convenient.

LESSON III

PROPER CARE OF THE TEETH AND NAILS

(To be read and discussed in class)

The teeth should be washed with a toothbrush twice every day—night and morning. A good tooth powder should be used; also sometimes a little salt. It is a good plan, when cleaning the teeth, to occasionally use salt-water as a mouth-wash and also as a gargle.

The teeth were made only for chewing. They should never be used to bite thread, to untie rope or bejuco, or to break anything. If one wishes to have good health when he is old, he must take care of his teeth while young.

If a hole appears in a tooth, the tooth will ache; and the only way to cure the toothache is to have a dentist fill up the hole or pull out the tooth. However, a tooth should never be drawn, as long as there is any possibility of saving it by filling or crowning. The outside of the teeth is covered with a very hard white substance called enamel, but under this there is a soft grayish substance called dentine, which decays very quickly when the enamel is worn away. In the center of the tooth is a hollow and in this hollow is the nerve. The nerve looks like a fine gray thread or a little worm. The nerve is very sensitive, and if air, food or anything else touches it, it will ache. In case there is no dentist near, toothache may be temporarily relieved by placing a hot water bottle or a hot stone against the face. Also hot water may be held in the mouth.

It is a very bad custom to file the teeth, because filing destroys the enamel and the tooth soon decays. We need our teeth as long as we live; for, if we cannot chew our food well, we cannot digest it, and we are then certain to have bad health. Few people understand how important to health their teeth are. Our food must be chewed until it becomes a paste if we are to get all the nourishment from it.

Teeth uncared for make one look dirty and ill-kept. They cause bad breath and indigestion. Dirty teeth soon decay so that the girl who does not care for her teeth suffers toothache and, although still young in years, she looks old and ugly. There are many reasons why every girl should make an effort to keep her teeth clean, white, and sound.

The finger and toe nails need attention. They should be kept clean and trimmed almost even with the flesh. Long finger nails are very ugly and are continually in the way when one is working or playing. Moreover, dirty finger nails are not only unsightly but they often cause sickness. The fingers must of necessity be used in preparing the food we eat. Therefore, dirt on the hands is particularly bad, because it finds its way into the mouth. Refined people make it a habit to have clean hands and short clean finger nails. Physicians tell us that contagious diseases are communicated by the dirt on people's hands more than in any other way.

The disease germs cling to the dirt in the little pockets between the nails and the flesh of the fingers and are thus carried far and near. Before eating, we should always wash the hands thoroughly with soap and water and see that the nails are clean.

(NOTE TO TEACHERS.—Illustrate the proper use of the toothbrush before the class and tell how a toothbrush should be cared for. Mix salt and water for gargle, using half teaspoonful of salt to a cup of water, and show how to gargle.

Illustrate before the class how the hands should be washed and rinsed, the use of the nail file and scissors, and how to trim and polish the nails. Have the members of the class do this for each other.)

LESSON IV

CARE OF THE HAIR

(To be read and discussed in class)

Every one admires beautiful hair, and most girls take great pride in caring for their hair properly. To have beautiful hair, a girl must keep both the hair and the scalp clean; and this takes thought and time.

It is very difficult in the Philippines for a girl to keep her hair free from lice. Perhaps this is because the hair is moist and warm and oily all the time. Perhaps, too, the use of coconut oil has something to do with this; for it has been found by actual investigation that the girls who use coconut oil on their hair are more troubled with lice than those who do not use it. Hair oil is not at all necessary, although most girls like to use it. If a girl's hair is brushed and properly combed, if it is not washed too often, and if the scalp is rubbed with the ends of the fingers every day, no oil will be needed, for there is enough natural oil in the scalp to keep the hair in good condition.

There are many things which may be used to rid the hair of lice. Among the best are petroleum, oil of bergamot, and tincture of larkspur. Any one of these things will kill lice, but constant care and watchfulness are necessary to keep the head clean.

To Rid the Hair of Nits.—The hair should be washed with lemon juice or vinegar after using petroleum, bergamot, or larkspur. Nits are the eggs of lice. They are attached very securely to the hair by a substance much like glue. Acid dissolves this substance and makes it easy to wash or comb away the nits. Nits, even if they are dead, make the hair appear dirty and ill-kept.

Petroleum is used to kill the lice themselves. To use it, dip the fingers into the oil and rub well into the hair close to the head. The petroleum should be left on the scalp for a short time; then lemon juice or vinegar should be rubbed over the hair. Afterwards, wash with warm, soapy water, rinse well, and dry in the sunshine.

Where bergamot or larkspur is used, the liquid should be rubbed well into the hair at bedtime. Enough should be used to thoroughly saturate the hair down to the scalp. Then the hair should be gathered up and bound about the head with a towel. In the morning the towel should be carefully examined, all lice killed, and the hair combed with a fine-toothed comb. Dip the fingers into lemon juice or vinegar and rub the hair well. Then wash the hair and scalp thoroughly in warm, soapy water.

When the hair is brushed, a stiff brush should be used with the bristles far enough apart to allow the brush to be easily cleaned. Five minutes' vigorous brushing night and morning will prevent dandruff from gathering and will keep the hair soft and glossy. The comb should have long, blunt teeth, set not too closely together. Sharp, rough teeth scratch the scalp and injure the hair.

To cure the scalp of scurf, half a teaspoonful of lime should be put into two cupfuls of water and allowed to stand over night. The water should be poured off clear of sediment and half a cupful of the best vinegar should be added. Wash the scalp with this mixture and rinse well. Remember that the more one scratches the scalp, the more dandruff and scurf there will be.

Every one should have her own comb and brush. It is very rude to use a toilet article of any kind that belongs to another. Washing the hair twice a month is often enough, unless the person is constantly working in dusty air or smoke, or unless the scalp makes much dandruff and bad smelling oil. In such cases, of course, it must be washed oftener. However, combing and brushing the hair is more important than washing it often.

It is not proper for women to appear in public with their hair loose and flying about; and girls should be careful to wash their hair at an hour when it will have time to dry and be properly arranged before they go to school or into the street. After it is washed, the hair should be dried quickly. This may be done by fanning or by sitting in the sunshine.

A flower is the prettiest ornament for a young girl to wear in her hair. If a ribbon is used as an ornament, it must be absolutely fresh and clean.

Beautiful hair that is clean and well-cared for adds much to a girl's personal appearance. On the other hand, hair that is untidy and infested with lice makes her appear slovenly and ill-kept, no matter how fine her clothes may be.

LESSON V

CARE OF THE EYES

(To be read and discussed in class)

If a person lives properly day by day, that is, if he has plenty of wholesome food, pure air, exercise, and sleep, and takes a bath daily, he is almost certain to keep his health; but there are other things that demand attention, and one of the most important of these is the eyes.

We get most of our pleasures through seeing. A blind person lives a very sad and lonely life. He is always in the dark. He cannot see the faces of his friends; he cannot work as others do; he cannot even take a walk alone, for he is likely to fall and hurt himself, or get in the way of an automobile or a horse, or into some other trouble. Without good eyes, we should be most unfortunate indeed.

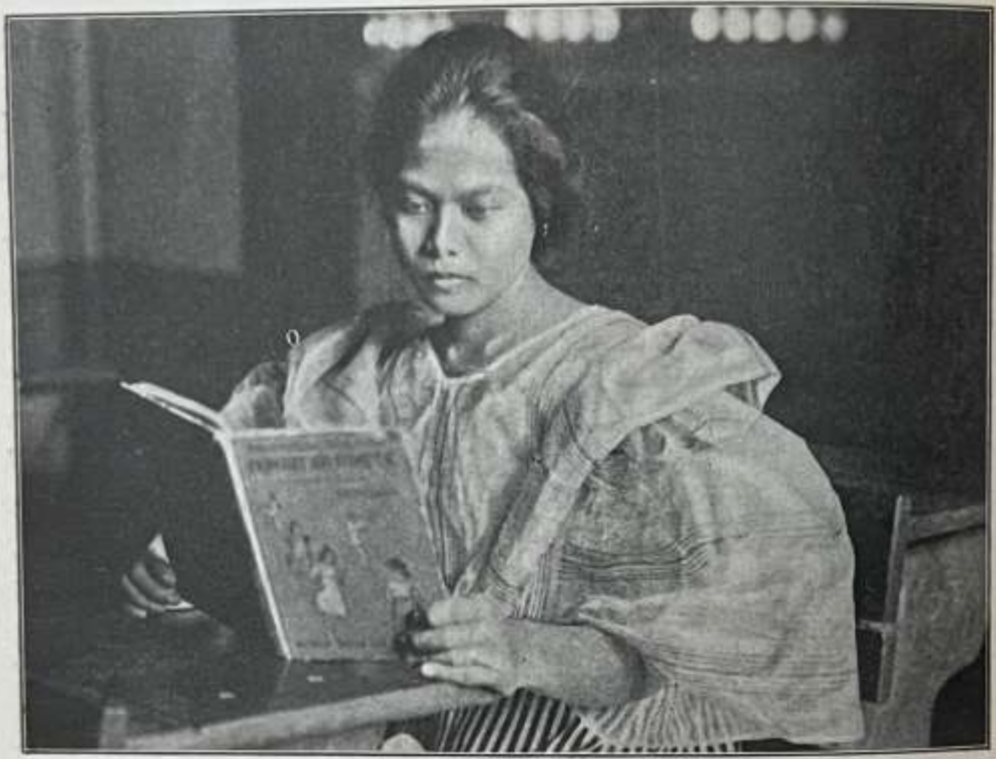
Our eyes are very delicate and must be taken care of properly while we are young, if we wish to have good sight as long as we live. Nature has protected our eyes well. They are set into our heads in such a manner that they are not likely to be injured. They have lids to cover them when they are in danger or when they are not in use, and these lids cover them without any special thought or care on our part. A flow of water, sometimes called "tears", washes out, without any thought on our part, all the dirt that gets into the eyes. The eyelashes and eyebrows soften the light and catch the flying dust or insects before they enter the eyes. But in spite of all that nature has done for us, our eyes soon wear out if we do not care for them properly.

Every morning as soon as we awake, we should wash our faces and be sure to wash the eyes carefully to remove the dirt that gathers in the corners and on the lids while we slept. We should never work or study with the light shining into the eyes; we should sit, whenever possible, so that the light falls upon our work from over the left shoulder. We should never read or work by a dim, smoky light.

Those who study at night should be especially careful of the eyes. It is very bad to study by a poor, flickering lamp which makes the book now dark, now light. Anyone who can afford books can also afford a good lamp. It is neither good sense nor economy to ruin the eyes studying by a poor light, as many do.

We should not study while lying down; this has caused weak eyes in the case of many people. Every pupil needs to provide himself with a good table, a comfortable chair, and a good light, just as much as with books and writing materials.

It weakens the eyes to look at the sun, or at the reflection of the sun in water, or at any very bright thing like a mirror or a piece of tin when the sun is shining upon it.



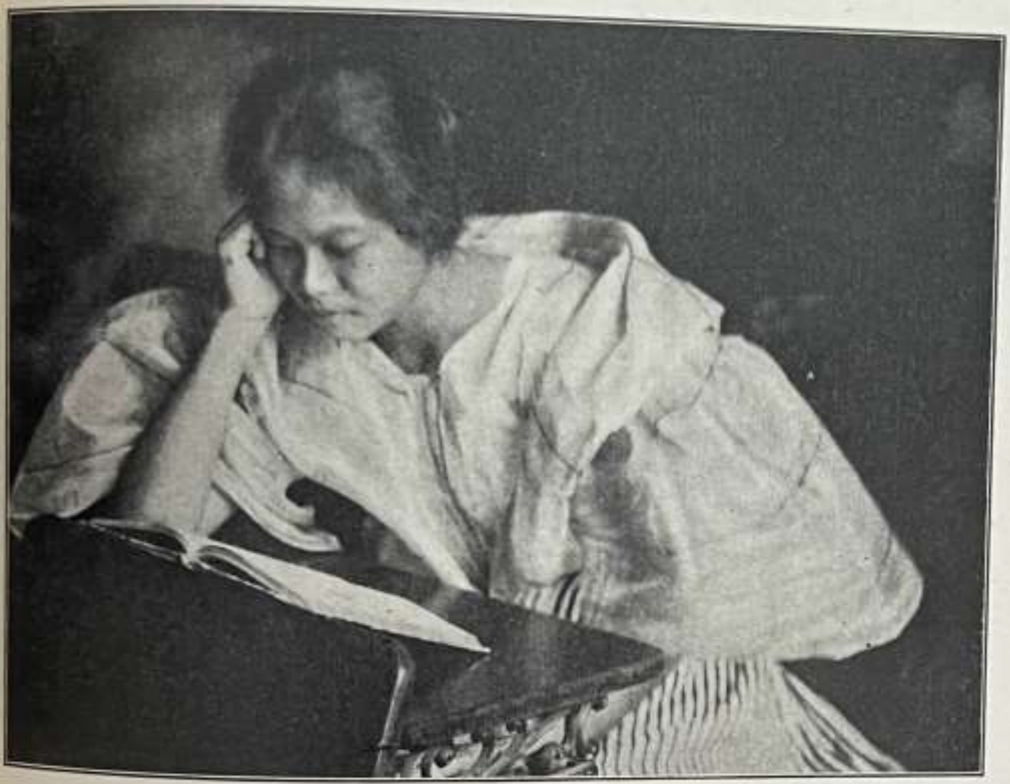
Correct position in reading.

We should not sew on dark cloth or on very fine work at night, but should do all this sort of work by daylight.

People who have to hold things close to their eyes in order to see well are called nearsighted. Any person who forms the habit of holding his work or his book too close to his eyes soon becomes afflicted in this way.

Some people can see things better at a distance. Such people are said to be farsighted. Many old people are troubled in this way. Both nearsighted people and farsighted people need to wear glasses; but in order that these glasses may be of value, they must be fitted to the eyes by a competent optician. There are many fake opticians who travel about selling glasses which are worse than worthless, for they strain the eyes and may cause blindness. A person who has to use glasses should have his eyes examined and the glasses fitted by the best optician available.

Many people are not able to distinguish between different colors; and to some people red and green appear as gray. These people are said to be "color-blind." People who are color-blind miss much of the beauty of the world.



Incorrect position in reading.

When the eyes are tired and aching, we should not use them any more until they are rested. It is good to wash tired eyes in water that has been boiled and allowed to cool. If the eyes are inflamed and painful, a folded white cloth that has been dipped in cold water—ice water, if available—should be laid upon them for a short time.

If our eyes give us trouble when we study or sew, we should ask advice at once of some good physician or oculist, so that we may get relief before it is too late. It is bad to buy glasses and wear them without the advice of a physician or oculist. They may not suit the eyes at all and may probably make matters worse.

If any friend or member of the family has sore eyes, he should not be allowed to use the towels, handkerchiefs, pillows, or basins, used by the other members; for the germs are very dangerous and can easily be carried from one person to another. After attending to the eyes of another person, we should always wash the hands and clean the nails well before touching our own eyes or mouth.

Remember that a little trouble with the eyes, if not properly remedied, may cause blindness. Many people are blind to-day whose eyes might have been saved, had they received proper attention when the trouble first began.

LESSON VI

CONCERNING SLEEP

(To be read and discussed in class)

In Lesson II, we read that one of the things necessary for good health is plenty of refreshing sleep. Let us look a little farther into this subject.

We sleep for a purpose. The brain and the whole body must rest or they will soon wear out. When we are asleep we are getting perfect rest; our bodies are doing just enough work to keep us alive till we awake again. It is while we are asleep that nature renews the worn-out parts of our bodies.

If for any reason we are unable to sleep, we soon lose our power of thinking and of working; we are tired and nervous and cross and soon become ill; we suffer terribly; and if we cannot sleep for a long time, we die.

Night is the proper time for sleep. Babies and young children need some sleep in the daytime; but grown people and boys and girls should get enough sleep in the night to enable them to remain wide awake all day. A person who has the habit of sleeping half of the day wastes a good part of his life and cannot expect to accomplish so much as others do.

When we go to bed, we should take off all the clothes we have worn during the day and put on clean, loose, comfortable sleeping garments. We need to do this because the clothes we have been wearing during the day are damp with perspiration and more or less soiled. The dust of the street is clinging to them, and dust always contains germs of disease. Everything about us must be clean to insure perfect rest.

We should make it our duty to prepare the right conditions for sleep. Everyone needs a good clean bed in a quiet, clean, well-ventilated room. We should have a comfortable pillow, blanket, mat, net, and loose clean sleeping clothes. We should leave a window open in the sleeping room and have bed clothes enough to make us comfortable.

If we sleep with our heads under the blanket, we must breathe the same air over and over again. This is a bad practice, because air that has once been breathed is very impure. It causes headache, it weakens the lungs, and it may bring on tuberculosis.

The bedding should receive proper attention in the daytime. It must not be rolled up and put away into some close dark corner. To be kept fresh and sweet smelling and free from insects, the bed clothes should be thoroughly aired every day, and should often be put where the sun may shine upon them. There is no one place where we spend so much time as in the bedroom—no one place so largely responsible for the condition of our health. Sickness will surely come where many people sleep crowded into a room with the windows closed.

Blankets are so heavy and hard to wash that we should use cotton sheets of light weight to keep the blankets from getting dirty by contact with our bodies. Since it is impossible to wash the pillow, we use a pillowcase to keep the covering of the pillow clean and fresh.

If we are not comfortable, we cannot rest well. A person who rests well every night is able to think clearly and do a lot of physical work; and he does not get sick so often as the one who lies down anywhere in his soiled day clothes to sleep, cold and uncomfortable, turning and tumbling, fighting mosquitoes all night.

Mosquito nets are more necessary to good health than are mats and pillows; for mosquito bites cause malaria.

Remember that anything that helps to keep people well and strong is not to be lightly thought of. To be well is to be able to do what one finds pleasure in doing, to enjoy life, to earn money, and to have good food and home comforts. We owe it to ourselves to do everything within our power to keep our bodies in a healthy condition.

LESSON VII

ORAL REVIEW

(Questions for thought to be discussed in class)

Is night air harmful?

Which is the better: To sleep in a smoky dirty kitchen, or out of doors? Give reasons for your answer.

Is it better to sleep out of doors, or in a house with the windows closed? Give reasons for your answer.

What are the advantages of sleeping out of doors?

Why is it harmful for a sick person to sleep in a room with other people?

Tell as many reasons as you can for and against keeping a lamp burning in a sleeping room.

How much sleep do we require? Do all people need the same amount of sleep?

What people need more sleep than others?

Why do we need special night clothes? Why is it bad to sleep with the head under the blanket?

Is it a good plan to study late in the night before examination? Give a reason for your answer. Can you give an instance which will make clearer the reason for your decision?

What can easily be done to afford us better rest at night?

LESSON VIII

CARE OF THE EARS AND NOSE

(To be read and discussed in class)

The ear that we see is only a very small part of the apparatus with which we hear. Its work is to catch the sound and conduct it into the real hearing part of the ear.

which communicates with the brain. This outer ear needs special care. It must be kept clean. Otherwise, dust and wax gather within it, stop up the opening, and cause pain or even deafness.

It is bad to pick the ears with pins, hairpins, or even with the finger nails; for such things injure and infect the skin. The ears should be washed with a soft cloth and pure soap and water; aside from this, they do not ordinarily need any attention.

Sometimes an ant or other insect gets into the ear and causes great pain. A few drops of coconut oil or melted lard poured in will kill the insect. The ear should then be washed out with warm soapy water.

If the ear is sore, gives pain, discharges pus, or feels full and deaf, it should be irrigated with warm water (as much as a liter). This generally relieves the pain and, unless the case is a serious one, remedies the difficulty entirely.

A bottle of hot water, or a hot stone or plate, or a bag of hot sand or salt, laid against the side of the head will usually stop earache.

The nose has two uses: To smell with and to breath through. Nature intended us to use our noses quite as much as our other organs of sense. Many people make little use of their sense of smell, and others have abused it so long that they have lost that sense entirely.

Very few people have keen, sensitive noses. Many people cannot tell when the air in a room is bad unless it is very bad, and they do not get the benefit of fragrant odors unless they are very strong. Such people, like the deaf and the blind, miss much of the pleasure of living.

The sense of smell was given us for protection as well as for pleasure. It is our sense of smell that tells us whether the air is fit to take into the body. Keen noses help to make strong lungs.

The nose must be kept clean; any discharges should be wiped away promptly. If the nose is troublesome, salt water should be drawn into it, then allowed to pass out. This cleans the lining membrane and helps to restore a healthy condition. Blowing tobacco smoke out through the nostrils inflames the membranes and in time injures the sense of smell.

EXERCISE 5

(Exercise cultivating the sense of smell)

(MATERIAL SUGGESTED.—All the common spices, and extracts, as well as mustard, pepper, laurel, carbolic acid, mint, chocolate, peanuts, olive oil, castor oil, coconut oil, coffee, petroleum, etc.)

Write on a slip of paper the names of all the things you can think of which are used commonly in your homes and which have peculiar odors. Compare these lists in class and then make up a complete list of all the things noted.

Put into bottles tiny portions of each of these substances and paste paper around the bottle so that the contents may not be visible. Put stoppers in the bottles. Number each bottle and then place them all on a table in the classroom.

When the class is called, go to the table, write the number of each bottle, smell of its contents, and opposite the number write what you think the bottle contains.

When all have finished, one girl may write her list upon the blackboard and the class verify it.

After a little while, each pupil learns to associate the odor with the name of the contents of the bottle.

Continue the exercise by having some of the pupils close their eyes while others select the bottles and pass them under the noses of those whose eyes are closed.

When the pupils have learned to recognize the substances readily, the bottles may be passed among them and they may tell:

(*a*) What the bottle contains.
(*b*) The use of the substance.
(*c*) Its cost and how it is bought—whether by the gram, kilo, dozen, etc.
(*d*) From what part of the world it came, and anything of interest they know about the substance.

For example:

This bottle contains ginger.

Ginger is used for flavoring, for making a preserve, and as a medicine. Green ginger is used as an edible vegetable.

Ground ginger may generally be bought for about twenty centavos for a bottle containing ⅛ kilo. Green ginger is sold by the bunch and costs about 10 centavos for a dozen roots. Ginger grows very plentifully in the vegetable gardens of the Philippines. Fresh green ginger roots are mild, but old dried ginger roots are very strong.

(NOTE TO TEACHERS.—Once the material for this lesson is at hand it should be kept for future use. The lesson should be repeated as many times as necessary.)

LESSON IX

CARE OF THE SICK

(To be read and discussed in class)

This is a lesson which every girl should read many times and consider thoughtfully, because sooner or later sickness of some sort comes to every home. Girls should remember that their education is of value only in so far as it helps them and the people with whom they come into contact to attain to better ways of living.

The sick room should be the coolest and most pleasant room in the house; it should be removed as far as possible from the smells and the smoke of the kitchen and from the noise of the living room. It should be kept as free as possible from dust and should have plenty of fresh air and sunlight. The room should, of course, be shaded to some extent, but all the sunlight consistent with comfort should be admitted, and the windows must be open day and night. It is very harmful to hang blankets about the bed so that the patient is in the dark and gets but little air, for people need air and sunlight as much as plants do. Care must be taken, however, to provide that no draft strikes the patient. Sunlight, fresh air, and bathing are always of more help to the sick than medicines, and cost nothing but care and a little forethought.

A lamp with its flame turned down should not be allowed to burn in the sick room through the night. A close room with a lamp burning all night will make even a well person sick. If a lamp must be used, it should be placed in the next room. Candles make a better night light than an oil lamp, because they do not smoke so much. Unless a light is absolutely necessary, the sick should always sleep in the dark.

Care must be taken to protect a sick person from any noise which is likely to disturb him, such as the laughter and screaming of playing children, the barking of dogs, or the squawking of geese and the noise of other fowls.

A sick person should not be allowed to receive many visitors. It shows a kindly spirit to inquire about our friends when they are ill, but unless we can be of service to the sick person or to his family, we should limit our visits to inquiries at the door. If admitted to the house, we should never remain long enough to tire the patient or to cause extra work.

We should never whisper in the sick room, or talk discouragingly to the patient. This will fret even a well person and it has a harmful effect upon a sufferer whose nerves are oversensitive. We should always be patient with an invalid, even though he may be unreasonable.

The sick room should be kept clean and tidy. All excreta and offensive matter should be removed at once. Such things should never be allowed to remain, even for a short time, in the sick room.

In the case of many diseases, particularly tuberculosis, pieces of old cloth should be used instead of handkerchiefs; and there should be little pieces of old cloth for the patient to spit upon. These should be burned as soon as they are used. The patient should not be permitted to spit upon the floor. If a cuspidor is used, a weak solution of carbolic acid or a little dry lime should be put into it. Failure to take proper precaution in this matter always spreads the disease.

The clothing of the sick person and of the bed should be frequently changed and the soiled clothes should be washed in hot water. The bed clothing must always be perfectly dry before being used.

The display of a lot of medicines, spoons, and glasses always has the effect of discouraging the patient. All such things, except what are absolutely necessary, should be kept in another room. Some simple thing like a bouquet of flowers, an orange, or a picture, brings much more pleasant thoughts to the sick.

If a person is seriously ill, a competent physician should be called at once, as there are but few diseases which physicians cannot cure or relieve, if called in time. When a physician is employed, his orders should be very carefully carried out. He should be chosen only after due thought, and then there should be no change of physicians unless there is good and sufficient reason. The custom among some people of going to two or three physicians for medicine at the same time, and of not following carefully the orders given by any one, is very foolish.

Serving the sick.

The physician's directions should be noted on a piece of paper; also notes should be kept for him, telling exactly what has been done, such as the exact time of giving medicine, the amount and kind of food given, and the hours the patient has slept. This plan should always be followed when the patient is very sick; for all such information is a valuable help. Any one who has charge of the sick and who fails to observe these common rules is largely responsible for the condition of a patient who fails to improve.

There are many little things which give much comfort to a sick person and which require only a little thought upon the part of the nurse. For example, frequently the handkerchief cannot be found without a tiresome hunt; it should be fastened with a string to the pillow. To lie in bed all day is very hot and uncomfortable. Rubbing the face, hands, and feet with a cloth wet in cold water and alcohol is very cooling and refreshing. This is especially good in cases of fever. It is often difficult for a sick person to make some one in another room hear him; he should have a bell to ring, or a stick at hand with which to pound, as a signal.

When the under sheet is to be changed on the bed of a patient who is too ill to sit up, the patient should be turned upon his side and the soiled sheet folded flat and laid as closely as possible to his back. The clean sheet should then be tucked in at the side and rolled to its center and the roll placed close to the soiled sheet. The patient should then be rolled gently over upon the clean sheet, when the soiled sheet may easily be removed and the clean one extended clear across the bed.

The fresh sheet should be well stretched and its edges tucked securely under the mat all around. When a sick person is very restless, it is best to draw each of the four corners of the under sheet as smoothly as possible when making the bed and then sew or pin the corners of the sheet to the mat from beneath. If pins are used, they should be large safety pins.

EXERCISE 6

Using dolls, practice changing the bed clothes and the patient's clothing. Then let a member of the class lie down, pretending that she is too ill to move, and let two girls change the sheets on her bed.

LESSON X

MINOR AILMENTS AND HOW TO RELIEVE THEM

(To be read and discussed in class)

Most of the indispositions from which we suffer are not serious and are caused by our disobeying the simple rules of hygiene. Some diseases are more serious such as smallpox, tuberculosis, cholera, and beriberi; but these have special well-known causes and by taking ordinary precaution we can usually protect ourselves against them.

Ignorant people who do not take intelligent care of themselves and their families, often say, when a member of the family gets very sick or dies, "It is God's will," when it is not God's will at all. It may be that the people to whom He has given minds and laws refuse to learn and to obey the laws which govern health.

Headache.—A headache is not a disease. It may come from cold, fever, eye-strain, exhaustion, sleeplessness, or constipation. To relieve the pain, the head should be bathed in cold water and should have a cold wet cloth laid upon it. The patient should lie down in a cool, quiet, airy, dimly-lighted room and should close the eyes and try to sleep. Sleep and rest help to relieve the pain, but may not remove the cause of the headache.

Most of the headaches in the Philippines are caused by the bowels not acting well or regularly. The intestines fill up with waste material and this, lying there day after day, causes many germs to grow, and much poison to enter the blood. This poison soon affects the brain and brings on a feeling of dullness and pain.

The usual thing to do is to adopt some plan to make the bowels move. One tablespoonful of Epsom salts in a glass of water makes a good purgative for a grown person. Early in the morning is the best time to take a physic. Castor oil is the best laxative for a child and the dose is one to three teaspoonfuls, according to the age of the child.

Where there is urgent need, an enema should be given, as it acts more quickly.

Whenever a headache continues and cannot be relieved by these ordinary means, a physician should be consulted, as in such cases the brain itself may be seriously diseased.

Sore Throat.—Often the throat is sore. This comes from a cold or from using the voice too much. If the sore throat comes from a cold, the throat should be gargled with salt and water at bedtime. Cold wet towels tied about the throat help greatly.

Rheumatism.—This is a very painful condition of the muscles, bones, or joints, with or without inflammation. It may occur in any bone, joint, or muscle and it causes great pain, fever, profuse perspiration, and swollen joints. It usually lasts from three to six weeks. Many old people suffer from rheumatism during the entire rainy season.

The sufferer should wear warm clothing and should protect his feet from wet and cold. He should eat light nourishing food and when the pain is very severe, he should rest in bed and use hot applications.

Sores and Eruptions.—These are sometimes caused by the flesh being rubbed, scratched, or otherwise injured; but they are usually caused by germs infecting the skin. They are uncomfortable, often contagious, and should always be cured as soon as possible.

To prevent sores, a person should keep his skin clean and should not touch anything that has been in contact with a person who has sores or eruptions of any kind. To cure the sores, they should be cleaned and washed often with a disinfecting solution obtained from a physician. Sores must never be scratched. The general health must be attended to. There must be good food and plenty of fresh air. The skin must be kept clean and active, because many poisons are sent out through the pores; and if the little openings in the skin are closed up with dirt, the poison is kept in the body and causes trouble.

Boils are caused by germs going down along a little hair on any part of the skin, infecting, multiplying, and causing the abscess. The flesh becomes hot, red, swollen, and painful. To prevent boils and to keep free from germs, the body should be kept healthy with good food, good air, and a daily bath. To relieve the pain caused by a boil, a hot cloth should be applied and the sore should be opened when it contains pus.

To cure any skin disease, it is necessary to improve the general health and the condition of the blood.

Chills.—When the body becomes very cold, shakes for a time, and then becomes feverish, the sickness is called "chills." This condition is caused by germs in the blood, as in the case of malaria; or by some poison in the blood from large infections; or it is the beginning of some serious disease.

During the chill, warm blankets should be put over the person; hot stones or bottles of hot water should be placed about him, especially at the feet; and if convenient, he should be given hot foot baths and hot drinks, such as milk, tea, coffee, or broth.

The cause of a chill should always be sought. If the chill happens each second, third, or fourth day, it probably comes from malaria; and a dose of from five to ten grains of quinine should be given the night before the chill is expected. In time of an epidemic of malaria, when there are many mosquitoes biting first the sick and then the well and thus carrying the disease about, it is not a bad plan to take a little quinine now and then. Whenever possible, chills should be treated by a physician.

CAUTION.—Babies, little children, and women in a delicate condition must never be given quinine without a doctor's order.

Fever.—Fever is not a disease but is the result of some disease known or unknown. It is caused by poison in the blood, malaria, infection, or disease in some special part. Whatever the cause, the treatment is usually as follows:

Put the patient to bed; stop all food except liquids; move the bowels if necessary (it is usually necessary); apply cold.

To apply cold, rub the patient lightly with cold wet towels so as to cool the body; or ice may be applied either in water, or in bottles or bags, to the head and neck; or the patient may be covered with a wet sheet and rubbed with ice. The sheet between the body and the ice lessens the shock.

Another way to apply cold is to put the patient into a tub-bath, beginning with tepid water, and then gradually adding colder water until the temperature is that of ice-water.

Diarrhea.—This is a very common ailment and, unless soon checked, makes serious trouble. It is usually brought on by eating something unwholesome.

To cure, all food should be stopped for twenty-four hours so that the bowels and the stomach may rest. If possible, the patient should be kept in bed for the entire day. Then give only liquid food, boiled milk, or gruel for a few days until the bowels move naturally. The sick person should keep off his feet as much as possible.

A very good food to give to persons suffering from diarrhea is made of parched corn. The recipe for this gruel is given in the lesson on corn cooking. Another good food is gruel made of browned flour. This recipe is given in the lesson on food for the sick.

LESSON XI

COLDS

(To be read and discussed in class)

The repetition of certain things which may not seem of much importance wears out our bodies little by little and gradually breaks down our health. For example, we may not be able to see that certain habits like sleeping with the head under the blanket or sleeping in a crowded bedroom with the windows closed, gradually weakens the breathing organs and brings on tuberculosis. We may not think that taking cold half a dozen times during a rainy season does us any harm. But sooner or later, we shall realize that because of such things our bodies have become weakened and that we get sick oftener than we formerly did.

From the time the rains begin until the dry weather comes again, many people, big and little, suffer from colds. These colds are a very serious thing, although they may be slight and the person may not be very sick. A cold often damages the hearing; and even a slight cold, if neglected, may become very dangerous. Cold following cold undermines the health and makes the person subject to fever, malaria, tuberculosis, and any other of the many diseases that are always among us.

We usually catch cold by allowing the surface of the body to become chilled. If we sit in the wind when the body and clothing are damp with perspiration, as at a dance, we are almost sure to take cold; for wet clothing conducts the heat away from the body much more rapidly than dry clothing. As long as we are exercising, there is but little danger of taking cold; but it is very dangerous to sit around in wet clothing. Wet skirts and wet shoes and stockings are particularly bad. The legs and feet should always be kept warm and dry. Wearing long skirts and low, thin, dancing shoes to school through the mud is one thing that is responsible for many colds and much more serious illness.

If the feet are bare, they may easily be wiped dry and rubbed until they are warm; then no ill effects are felt from a wetting. But sitting in wet skirts and in wet shoes and stockings is a sure way of taking cold. Shoes and stockings are a necessary part of the clothing, to be sure, and we need them more on cold damp days than in pleasant weather; but the kind to be worn on such days are those that are thick and strong—the kind that keep water out and the feet warm. *Skirts long enough to drag should never be worn in wet weather.*

Many people take cold easily during the rainy season because they do not then bathe so often as they should. The skin plays a very important part in the prevention of colds and other diseases. In it are thousands of little holes called *pores*, and through these pores a large amount of the waste matter from our bodies passes out to the surface of the skin every day. If this waste matter were not in some way removed, we should soon die; so we may readily understand how important it is to keep the skin clean and these little pores open. (Look at the back of your hand and see if you can find any trace of these little openings in the skin.)

We need to bathe as often in wet weather as in dry weather. Some kind of bath should be taken every day. The skin may be kept clean and in good condition by rubbing the body briskly every morning with a coarse wet towel and then rubbing with a dry towel until the skin is dry and warm.

Dust-laden wind, such as we sometimes have to face, will often cause a cold in the head. We should avoid dusty places as much as possible. Always breathe through the nose and keep the mouth closed when walking in the wind. The delicate membranes of the throat and nose become irritated by dust; and when irritated or inflamed they are easily affected by the great number of germs which are caught upon the moist warm surface and which thrive there.

As stated in one of the preceding lessons in this book, the nose contains an apparatus for filtering the air. In order that this apparatus may do its work properly, the nostrils must be kept clean and we should avoid, whenever possible, subjecting them to overwork.

Sore throat is nearly always contagious and requires special precaution. One should never kiss a person on the lips who is suffering from a cold, or from sore throat, or lung trouble; and when talking to such a person, one should not come close enough to inhale his breath. No one should visit those who are suffering from diseases of the throat and lungs unless he can be of some service to them.

For one who is suffering from a cold, there is but little that can be done aside from keeping warm, dry, and comfortable; but when a cold is just beginning, much may be done to keep it from being a severe one. Hot baths and hot mustard foot baths are recommended, as well as the drinking of hot lemonade, hot tea, or hot ginger tea. Anything that causes perspiration will help break up the cold. However, when the patient is perspiring, he must be most carefully guarded against becoming chilled. He must be kept under a proper amount of cover and protected against drafts; otherwise, the only effect of perspiration will be to make matters worse.

Whenever a cold is accompanied by a cough which holds on more than a few days, the sufferer should by all means consult a physician without delay. Tuberculosis often has its beginnings in an ordinary cough or cold.

There are many simple cough mixtures to be had, which are often helpful. However, the taking of drugs is never advisable, except as a last resort, and even then, only upon the advice of a good physician. By far the best plan is to keep the general health in such condition that the body may easily resist taking cold, or easily throw off a cold, by means of the powers of resistance with which nature has provided all mankind.

EXERCISE 7

(Oral review)

What are the months of the rainy season? What are the months of the cool season?

Is the fact of having plenty of blankets a matter of personal comfort for the time being, or does it affect permanently the health and prosperity of a family? Give reasons for your opinion.

Describe a suitable rainy-day costume for school wear.

Tell four common causes of colds.

Give a recipe for making hot lemonade.

Tell how to take a hot mustard foot bath, and when it should be used.

How should an obstinate cough be treated?

Describe some simple homemade cough mixture which you have seen used. (For example, among the people of the United States, a sirup made of molasses, vinegar, and butter is often used.)

Tell how to treat an ordinary sore throat.

Prepare a hot-water bottle, using any ordinary large bottle of thick glass to hold the water.

Tell five uses of a hot-water bottle.

LESSON XII

TUBERCULOSIS

(To be read and discussed in class)

Men of science have proved that there is no necessity for terrible epidemics of disease, such as cholera and smallpox; they have shown that every case comes from some other case and is due to somebody's ignorance, carelessness, or neglect. They have also proved that it is not necessary for people to have that terrible disease tuberculosis, which is so common among us and which causes so much sadness and costs so many lives every year.

We are living in a very progressive age. Now that it has been proved that tuberculosis can be gotten rid of, everybody should be eager to help the work along.

Statistics show that tuberculosis kills more people than does any other disease, cholera and smallpox not excepted, and that it kills more people than war or famine. It is found in all countries, but nowhere in the world is the situation any worse than in the Philippines. The reason for this is that in general the people here have been careless about the public health. They have broken all the laws which govern health, and the consequence is that they are not, as a people, physically strong enough to resist disease.

In order to have good health, human beings must have plenty of fresh air; yet many people sleep with their windows closed and often with their heads under their blankets. They keep smoky lamps burning all night in their sleeping rooms and live crowded closely together. Some keep pigs, goats, chickens, ducks, or other animals of various kinds in or under their houses. All these things poison the air these people breathe; and the result is that sooner or later they become pallid, sickly, unable to do good work, and subject to serious illness.

To have strong bodies, people must have plenty of wholesome food every day; yet some people seem to think that, if one is not actually suffering from hunger, food is not worth working for and that it is better to have fine clothes and jewels than three substantial meals each day.

Children who are improperly clothed generally develop into weak tubercular men and women. They do not live long, and they are not good for much while they do live. Many little children, because of insufficient clothing, suffer from colds all through the rainy season. Cold following cold weakens the whole system, especially the lungs, and makes it easy for tuberculosis to get a foothold.

Little children must be kept warm and dry. One little thin garment, such as we often see, is not enough clothing for a child, except in the very warmest hours of the day.

Women in general need to dress warmer in the cold and rainy seasons. They should wear something substantial over their chests and arms, and they need shoes and stockings quite as much as the men do.

We often see a tubercular person taking care of a little child, kissing it, and even feeding it out of a spoon with which the diseased person himself has been eating. We also see little children creeping about upon the floor where diseased people have been spitting.

Among the worst habits of all—habits that cause more disease than all the others put together—are those of spitting and blowing the nose on the fingers. Until these habits are broken up, we may never hope to drive tuberculosis out of the country. Many other diseases besides tuberculosis are spread in this way. Such habits are not only dangerous but indecent as well; and every educated person should make an effort to put a stop to them.

Many grown people and children who have coughs have tuberculosis without knowing it, and they can and do give the disease to others. It is everybody's duty to guard carefully against everything that might possibly spread disease.

Tuberculosis of the lungs is a disease which comes from contact with other people; it is not simply caused by colds, although a cold makes one more liable to take the disease. The real cause of tuberculosis is a very tiny germ which usually gets into the body by means of the air breathed. The matter which tubercular people cough up or spit up contains these germs in great numbers. If this matter is spit upon the floor or ground, it soon dries, becomes powdered, and floats about in the air as fine dust. The germs do not die; they float about in the dust and enter people's lungs with the air breathed. The dust in a house where tubercular people live is especially dangerous.

The breath of a person suffering from tuberculosis, except when he is coughing or sneezing, does not contain the germs and will not cause others to take the disease. A well person gets the disease only by taking into the lungs the matter coughed up by some person affected.

It is not dangerous to live in the same house with a person suffering from tuberculosis if the matter coughed up by him is properly disposed of. This matter must never be spit upon the floor or ground; it should always, if possible, be spit into a cup kept for that purpose. The cup should have in it a little dry lime, such as is used with betel-nut, or a carbolic acid solution (three teaspoonfuls of carbolic acid, of the strength one generally gets at the drug store, to a cupful of water). Either of these, the lime or carbolic solution, will kill the germs. This cup should be emptied into the vault twice a day and carefully washed with boiling water.

People suffering from tuberculosis must be very careful to prevent their hands, face, and clothing from being soiled with the matter coughed up. If they do become thus soiled, they should be at once washed with soap and hot water.

When the sick are away from home, the matter coughed up should be spit upon pieces of old cloth and these cloths immediately burned, or at the first opportunity. If handkerchiefs are used, they should be boiled at least twenty minutes before being washed. A person suffering from tuberculosis should never swallow the matter which comes up from the lungs.

When a person coughs or sneezes, small particles of spit containing germs are thrown out; therefore everyone should always hold a handkerchief before his mouth during these acts.

A person who is sick should have his own bed and, if possible, his own room. The windows should be kept open day and night. His soiled clothes and the clothes from his bed should be handled as little as possible when dry, and should be placed in water until ready for washing. Then they should be boiled.

The room should be cleaned every day, and, in order to prevent raising dust, the floors should be wiped, and all dusting should be done, with a damp cloth.

If the matter coughed up is made harmless by means of dry lime or carbolic solution, and if all the other precautions mentioned in this lesson are observed, a person suffering from tuberculosis may often do his usual work without giving the disease to others, and may also improve his own condition and increase his chances of getting well.

Rooms that have been occupied by a person suffering from tuberculosis should be thoroughly cleaned, scrubbed, and either whitewashed or painted before they are again occupied.

EXERCISE 8

Translate into your own native language, and talk over at home, the following words of advice:

Don't get tuberculosis yourself. Keep as well as possible, for the healthier your body the harder it is for the germs of tuberculosis to grow in your lungs.

Do not eat with your fingers. Wash your hands and clean your finger nails before preparing food. Do not put anything into your mouth that you do not intend to eat.

Don't live, study, work, or sleep in rooms where there is not plenty of fresh air and sunlight. Fresh air and sunlight kill disease germs; therefore have as much of both in your house as possible.

Keep your windows open day and night.

Eat three meals at regular hours every day.

Take a cold bath every morning and a bath with warm water and soap at least once a week.

Sleep eight hours of the twenty-four, but do not sleep in the same room with a person suffering from tuberculosis.

Do not kiss any person on the lips who is suffering from a cough.

When a cough lasts more than a few days, go to a good physician and have the lungs examined.

Do everything in your power to stop the dangerous habit of spitting.

GRADE SIX

LESSON XIII

CARE OF BABIES

(To be read and discussed in class)

It is a fact that the number of Filipinos who die in early childhood is much greater than the number of those who grow up to mature years. This is largely due to the fact that those who have the care of little babies do not understand their needs. When the women come to understand that babies do not die because God wants them, but because they do not have proper care, and when women set about to find the proper way to care for babies, they will do more for their country than they could possibly do in any other way.

As long as children are babies, and until they have cut their teeth, they must have a great deal of intelligent care. Otherwise they will surely be sickly; and if they do not die, they will at least grow up into weaklings incapable of either mental or physical development.

A baby has very few needs, but those few are not to be trifled with, if he is to be well and to grow into a strong man. He must eat regularly the right kind of food, he must sleep, and he must be kept clean and warm.

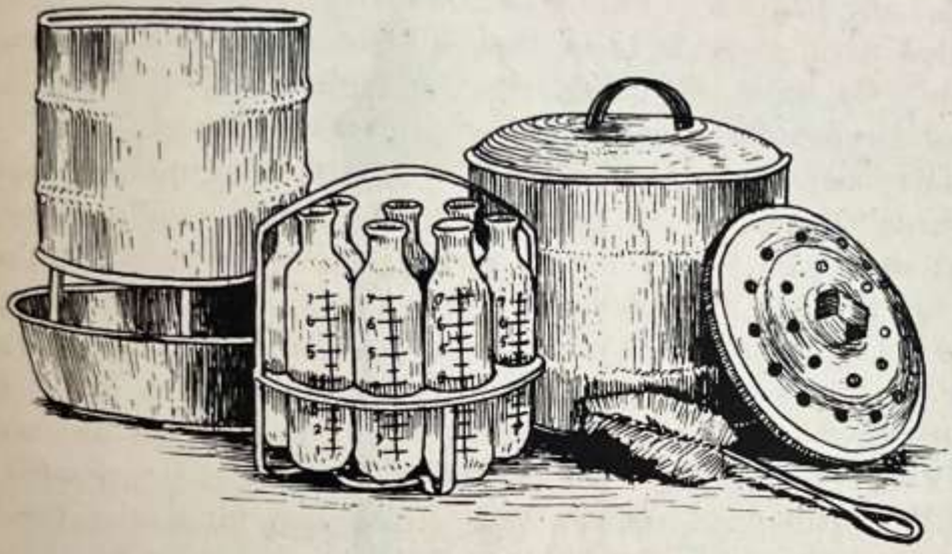
The most important fact for every girl to remember concerning the care of little children is that the only things that should be fed to a baby during the first eight months of his life are milk, boiled water, and a little fruit juice; and that the baby, in order to be healthy, must have each one of these in its proper proportion. Mother's milk of course is best; but if the baby cannot have that, he may be given canned milk, which should be properly prepared. On the wrapper of the can will be found printed directions for preparing milk for babies.

Goat's milk is good, but it is usually hard to get. Caraballa milk, if clean and properly diluted, does very well. If necessary to buy fresh milk of any kind, one should make sure that the milk is pure; for dishonest dealers often dilute fresh milk with water or coconut milk. In the majority of such cases, the water has not even been boiled or distilled, and is likely to make the baby sick. With some babies, coconut milk acts as a poison, often causing stomach and bowel trouble and even death.

If one is not sure that the fresh milk bought is pure and clean, he would do much better by feeding the baby on canned milk. It is always well, however to have a physician tell how to dilute any milk that is to be used for baby food. It is not wise to experiment, because the baby may become very sick, or may die, before the experimenter finds out what he wants to know.

In order to kill the germs which milk contains, it must be heated; but it must not be boiled, for boiling changes its nature and makes it hard to digest. A good apparatus for heating milk without boiling it consists of a large covered kettle, into which is fitted a tin rack with round holes cut into it for holding the milk bottles in place. This apparatus may be bought in any good hardware store.

To prepare milk for baby food: Set the bottles of prepared milk into the rack mentioned in the preceding paragraph; then set the rack with the bottles into the kettle. Put into the kettle some cold water, but not enough to touch the bottles. Put the kettle over the fire, cover it, and let the water boil thirty minutes. The steam surrounding the bottles heats the milk. The mouth of each bottle should be stopped with clean white cotton cloth that has been boiled before being placed in the bottle. When a bottle is taken from the kettle it should be cooled quickly, and the cloth stopper should be left in its mouth until the milk is to be used. This is to keep out flies, dirt, and anything that might infect the milk.

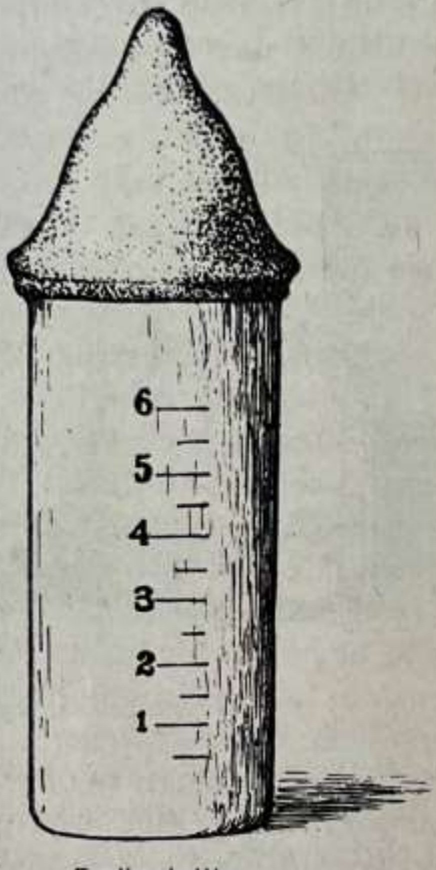


Milk-sterilizing apparatus.

A feeding bottle should be of such a shape that it may be easily cleaned. The best nipples are those of plain black rubber that slip easily over the bottle neck and are soft enough to turn inside out for cleaning. The nipples should be of the kind that do not collapse. The hole should be just large enough so that when the bottle is held upside down the milk may drop rapidly but not run in a stream.

Long tubes with nipples attached should never be used. They cannot be cleaned and they are so great a source of danger that, in some French and American cities, it is against the law to use them.

Bottles should be cleaned at once after being used. They should be rinsed in cold water, then washed with hot soapy water and a brush, and rinsed again. When not in use, they should be set away filled with water and should then be rinsed and placed in water and brought to the boiling point before again being used. A great many babies die because their feeding bottles are not properly cared for but are allowed to become foul and poisonous with soured or decayed milk.



Feeding bottle.

Babies must be fed regularly. It is just as important that they eat at the right time as that they have the right kind, and the right amount, of food. A baby that is fed every time it cries and whose stomach is kept full day and night is the one that dies of stomach trouble. Babies' stomachs must rest part of the time.

A very young baby should be fed once every two hours during the day and once or twice at night; but as he grows older, not so often. Babies under eight months of age must never be given rice, soup, sugar, bread, bones, or other things to eat or suck to keep them quiet. A child with four or more teeth should never be allowed to nurse from the mother's breast; but he should be given plenty of milk to drink all through the growing period, for no other food gives sufficient bone-building material. Little babies should not be given play-things to put into their mouths. These things all cause indigestion in some form or another; and they may give the baby colic, fever, or cholera infantum, and make him wakeful and fretful. No exception is made of "pacifiers" and teething rings in this connection.

Another great cause of sickness and death of little children is the habit some people have of handling a baby too much. He is carried and petted and bounced around all the time he is awake, instead of being left to himself just to digest his food and grow.

Babies should never be given into the care of little children. This custom has cost many lives and has made many invalids, cripples, and hunch-backs. A child six or seven years old is not strong enough to carry about a big, active baby. She may fall with him or drop him; or the baby may jump and sprain his back in such a way as to cause a life-long weakness. The little care-taker might not be to blame for any accident which might happen; but if anything should happen to her charge, her whole life would be filled with sorrow and regret. It is therefore unjust to place such a responsibility upon a child. Children should play with other children, of course; but they should not be permitted to run about with little ones in their arms.

Kissing a baby is not at all good for him. Many grown persons have diseases of one kind or another, or foul breath and dirty lips from tobacco or betel-nut. A baby does not like to be kissed. Kissing him immediately after he has been fed is very likely to cause him to vomit; and vomiting tires him, takes his strength, and wastes the food that should be used to make him big and strong. .

Many women seem to think it is part of the necessary care of a baby to kiss and cuddle him; and men have a notion that a baby should be hoisted high above their heads, or tickled or trotted to make him laugh. The baby will usually laugh or cry, not because he is happy or afraid, but just because he is nervous. A thoughtful mother knows that this can do her baby no good; that it often hurts him; and that it tires him needlessly, even if it does nothing worse.

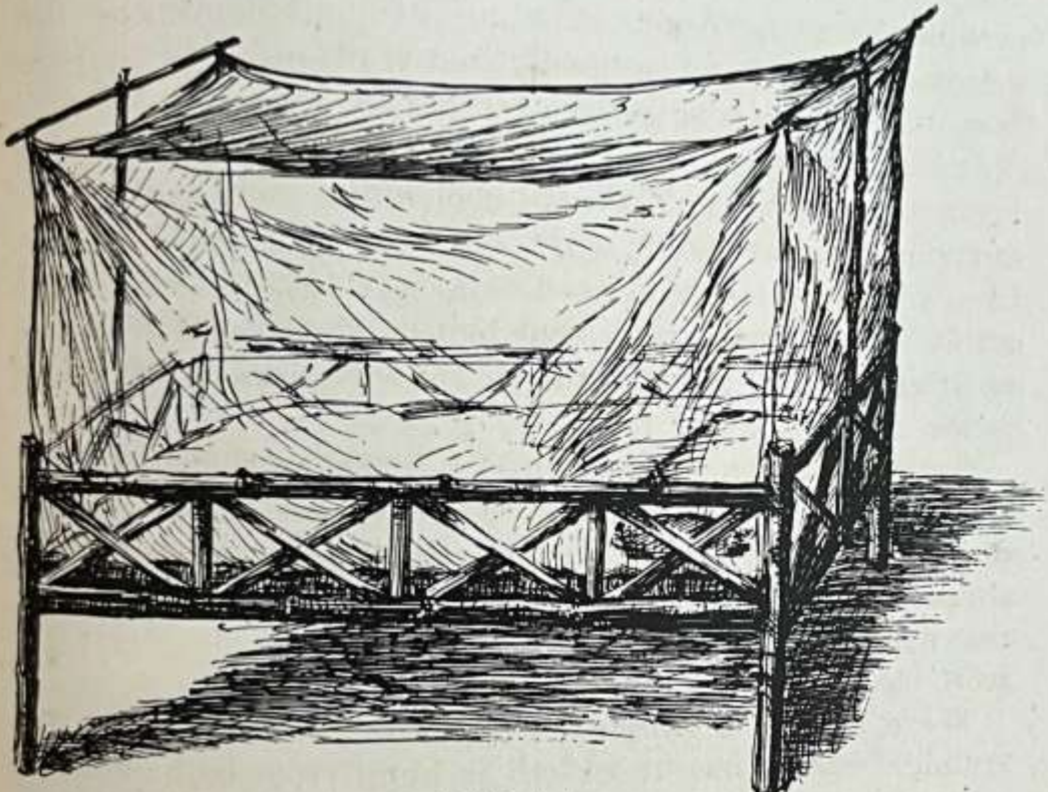
It is a mistaken idea that babies must be in somebody's arms all day long. They are cooler and more comfortable and much better off if, when not receiving necessary care, they are laid upon their beds and left just to sleep and to grow. Of course, a baby that is accustomed to a great deal of attention will fret for it, but that does not prove that it is the best thing for him.

Babies need fresh air quite as much as they need food and quiet sleep. They should be kept much of the time out of doors. A very good plan is to hang the hammock in the shade where the wind does not blow too hard. At night the window should be kept open in the room where the baby sleeps.

We often see a baby sleeping in a cloth hung from the ceiling. Sometimes this cloth is hung from both ends like a hammock, and a piece of bamboo is put into it to hold it open. Then if a bit of mosquito-net is thrown over it to keep off mosquitoes and flies, it makes a very good bed for the baby. A baby's bed ought always to be protected by a mosquito net. When a hammock of any kind is used as a bed for the baby, care must be taken to have enough bedding under him so that he may not get cold from underneath.

Sometimes this cloth hammock is hung from a nail like a bag. Then the baby is cramped and uncomfortable, for he cannot lie straight. Then, too, the bag closes over his head so that he does not get enough fresh air. This, if continued, causes him to have weak lungs when he grows up.

A baby must be kept clean. He must be washed every day. The first two days his bath is an oil rub. After that he takes his bath in warm water. He should be carefully protected from all wind by a blanket, and each part of his body should be gently bathed with a soft white cloth and quickly dried by patting with a second soft white cloth. As soon as the cord drops, the baby may be put into a bowl of warm water, but his bath must be given quickly and he must be instantly rolled in a soft towel and patted dry when taken from the water.



Bed for baby.

A baby's skin is very tender; therefore only the purest of soap should be used for his bath. After he is dried, the creases of his body should be lightly dusted with a good baby powder. This keeps him from getting sore and chafed.

Many times the top of the baby's head becomes crusted. This crust must not be scraped off or scrubbed off with strong soap and water; it may be cleaned away by bathing the head often with warm coconut oil.

A baby that has grown accustomed to being in the open air and that sleeps soundly and digests his food properly is not likely to be sick. His body is full of good red blood; and if he does become sick, he is much more likely to recover quickly than one that has always been carried about and pampered. The proper everyday care of a baby often makes the difference between a mild case of illness and a very serious one.

If the baby is born well and sound and is properly fed, he will not need any medicine. What he principally needs is pure food, fresh air, a good bed, and proper baths. Aside from these things, he should largely be left alone and just allowed to grow.

When a baby seems ill, a physician should be called in and no one else should be permitted to give him any medicine. The first thing to do in case of fever or intestinal trouble is to lay the child down, keep him quiet, and not give him much to eat. This is the only thing to do until the physician comes.

Home doctoring cannot be too strongly condemned. It often causes death, and in nine cases out of ten it does more harm than good. Even if it does no other harm, it always delays the proper treatment, so that the child is sicker when the physician does come, and the right kind of medicine may be given too late to cure him.

There are some people who, before calling a physician, try all kinds of charms and all the home remedies that anybody tells them about. In such cases, when the physician does come, the sick person is often so near to death that nothing can be done for him.

EXERCISE 9

Make a saturated solution of boric acid. Put a tablespoonful of boric acid powder into a quart bowl, pour a pint of boiling water over it, and cover. When it is cool, turn it into a clean bottle and shake until the boric acid dissolves. Add more powder and shake until no more will dissolve. Keep adding boiled water and powder in proportion as more solution may be needed.

To use this, dilute with equal parts of boiled water; use for washing baby's eyes and mouth, mother's breasts, etc.

LESSON XIV

WHEN A BABY IS BORN

(To be read and discussed in class)

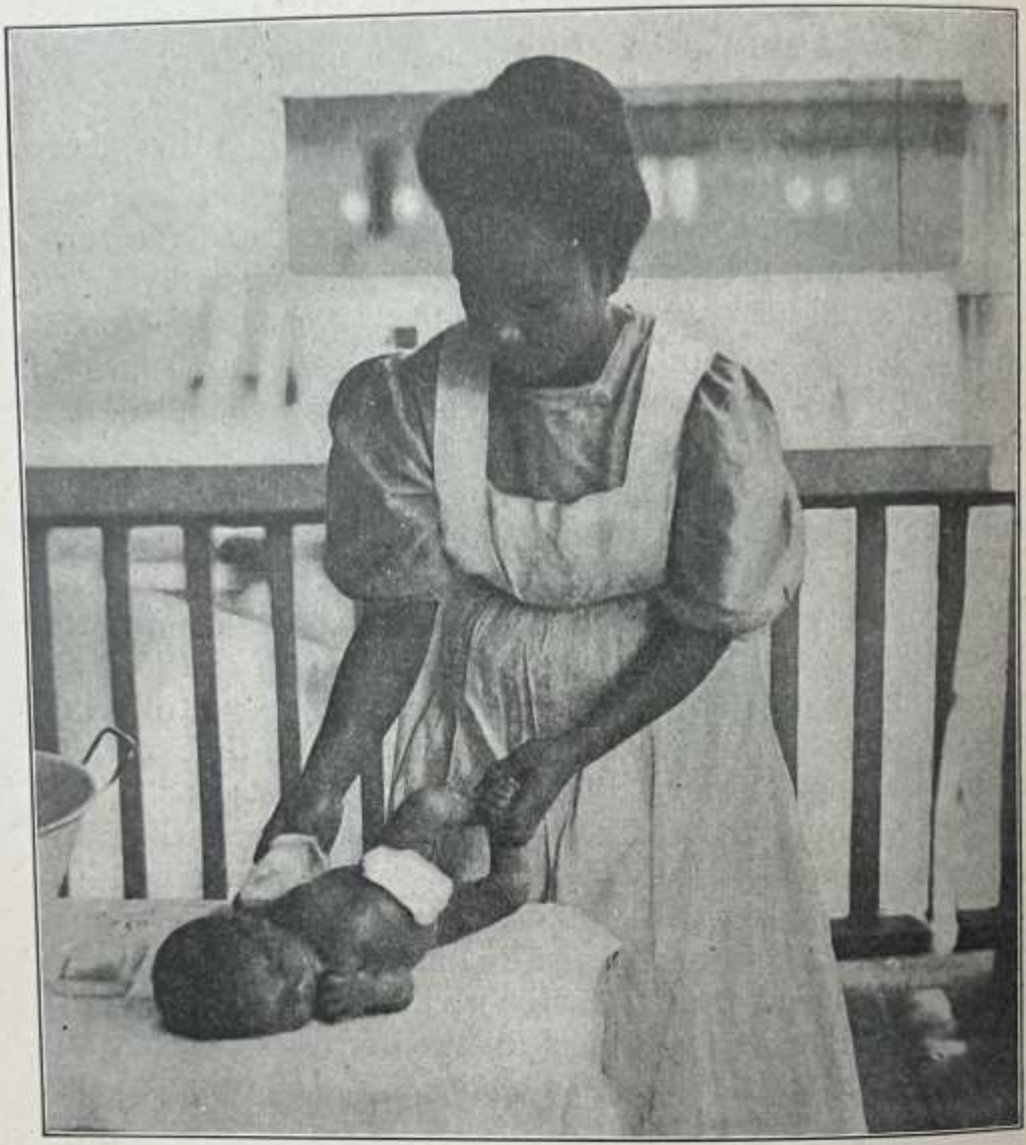
When the time comes for a baby to be born, the house should be properly prepared beforehand. There must be a clean bed, clean, loose clothing, and a quiet, clean, private room. A physician should be called in, if possible; if not, at least a good matron or midwife; or, best of all, the mother should go to a hospital. There should be one or two women present to assist the physician; and the father should remain near at hand to show his sympathy and to comfort and help wherever possible. Nobody else should be permitted to remain about the house. Particularly if there are any children in the family, they should be sent away for two or three days.

After the baby is born, the mother should remain in bed and should be kept quiet and free from worry, care, noise, and visitors. She must have good nourishing food, must be bathed every day, and everything used about her should be clean. Many women have had bad health and look old, worn, and ugly before their time because they still follow certain objectionable customs. If mothers in time of childbirth are kept clean; if they take enough rest; and if they will stop doing the foolish superstitious things which are often done without any reason and which are very likely to cause serious trouble, there is no reason why women should be sick and nervous and unable to properly care for their homes and families after giving birth to children.

As a rule, after two weeks the mother may go about and resume her usual household duties. She should have at least that much time in which to rest and regain her strength.

After the baby is born, the mother should rest two or three hours before the baby takes its food. There is no hurry about this; the baby could live comfortably many hours without feeding. Its first food is not real milk, but a laxative fluid, which at the same time teaches the baby to nurse. For the sake of both the mother and the child, the baby should be taught to eat promptly and regularly. It is not only better for the baby's stomach, but at night both need unbroken rest and sleep.

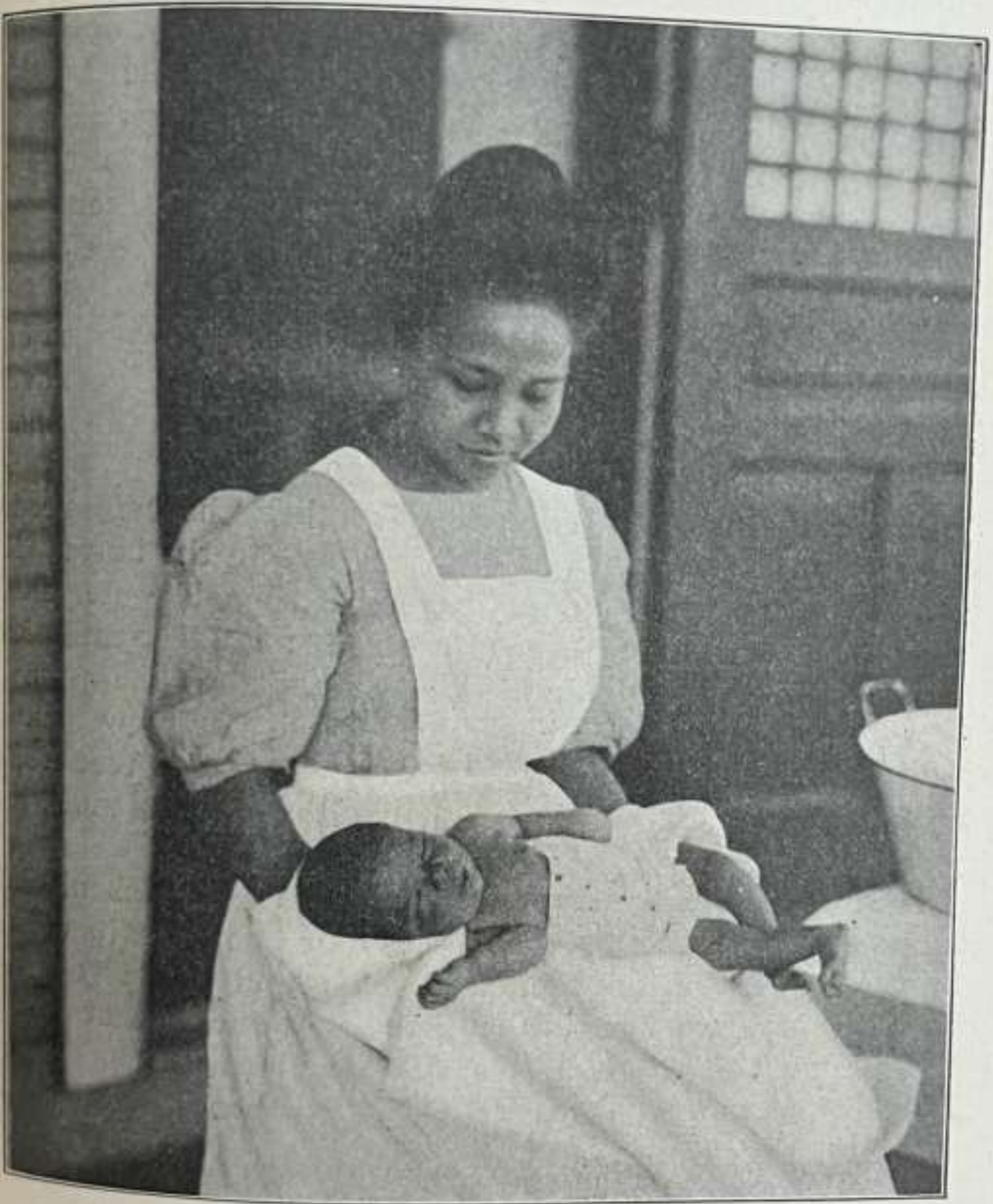
The newborn baby needs very special care. It is very delicate and its life is precious. Everybody should know how to protect it and take the best possible care of it to save its life. One of the most important things to be done for the young baby is to wash its eyes well as soon as it is born. All babies' eyes have many microbes in them at first and sometimes these are of a dangerous kind. If not washed away, they make the baby's eyes very sore; and if



Newborn baby properly cared for.

the eyes are not properly cared for, the baby will be blind. Thousands of people are blind to-day because their eyes were not given proper attention at the time of birth.

Before the baby's body is washed, the eyes should be washed well with a boric solution or a little clean water, if no boric solution is at hand. A little antiseptic cotton should be used for this purpose, or if there is no cotton at hand, a small piece of old, clean, white handkerchief will do. The mouth and nose should be washed out well also in order



Newborn baby properly cared for.

that the baby may breathe properly. This should be done with a swab made by wrapping a little antiseptic cotton around the end of a tooth pick.

The umbilicus must be washed clean and then kept clean and dry. It should not be plastered with ashes, dirt, tobacco, or grease, as is not infrequently done by ignorant people. It should simply be washed and bound with a clean cloth. (An old, soft, clean, white hankerchief is good.) A little talcum powder may be used, but if there is no powder available, nothing except the cloth should be used. There is no absolute need of anything but the clean dry dressing.

The band should be a wide one and should be pinned on firmly and straight, but never tied tightly. The navel should be kept clean and dry and undisturbed until it has healed—about the fifth day or later.

During the first few minutes of its life, the baby needs to cry in order to open the little air sacs in the lungs. If it does not cry lustily and at once, a little cold water may be sprinkled upon its face or chest to make it "catch its breath," breathe deeply, and thus set its lungs to working. It should be closely watched during the first few hours, to see that it is kept quiet, clean, dry, warm, and free from wind and cold. It should be allowed to sleep as much as possible.

During the first forty-eight hours, the baby should be taken to its mother only once every four hours for its milk; by that time, the true milk has come, and the baby is to be fed every two hours during the day and two or three times during the night. It should be given its food regularly, but otherwise disturbed as little as possible.

LESSON XV

CARE OF LITTLE CHILDREN

(To be read and discussed in class)

A little child two or three years old should receive as much care as a baby. When he is old enough to run about a little and to play with other children, he must be taught to keep clean and to care for his body. He must also begin to learn all those things which, if practiced day by day, make good habits, a strong body, and a sound mind.

A mother needs much wisdom and patience and an unlimited amount of common sense. She has not only the life of her little children in her keeping but also the future health of the men and women that her children will grow to be. Everybody should know the laws of hygiene; but it is especially necessary for those who have the care of little children to know what things cause sickness and death.

The needs of a little child are much like those of everybody else; but since he is not old enough to take care of himself, some one else must see to it that he has everything that is necessary.

One of the child's most important needs is a daily bath; and sick or well, he must have it. Care must be taken not to let the wind blow upon him when he is wet. Otherwise, he will take cold. It is the wind blowing upon a person while he is wet, not the water, that does him harm, particularly when he is sick.

Bathing is a cure for many diseases, and there is no form of sickness which a dirty skin does not make worse. Very often, a lack of proper bathing is the cause of fever and sores on the body.

To bathe a sick child, he should be laid upon a blanket in a room with the windows and doors closed, and should then be washed with a wet cloth or sponge. The water used should be about as warm as the inside of the mouth. The body should not be wet all over at once; first the face should be washed and dried, then the arms, then the neck and chest, and so on. A sick child may be given a bath in this way every day; and, instead of being the worse for it, he will be made much more comfortable.

A bath must not be given immediately after a child has eaten. A good way to give a well child his daily bath is to stand him in a pan of water and gently throw water over him. He should be dried quickly by rubbing his body briskly with a towel. In addition to the usual daily bath, every little child needs a bath with soap and warm water at least once a week. The best time to give such a bath is just before he is put to bed.

The bones of little children are soft; and if a child is urged to walk too soon, the bones will bend, and he will always have ugly, crooked legs. Children should not be lifted by their arms; this may cause serious trouble. The custom of carrying children upon the hip is bad for the child, and bad for the one who carries him. The child's body becomes deformed, because this is an unnatural and strained position; and as the bones are soft, the legs and hips develop unnatural shapes.

Little children should be dressed in simple soft clothes that will wash many times and wear well. The fact that a mother loves her child is no reason why she should make him uncomfortable with a stiff awkward hat upon his head, or hard shoes that hurt his tender feet, or a stiff dress that scratches his delicate skin. The most suitable dress for little children is the one that is most comfortable. Children are not playthings and should not be dressed to amuse older people.

One little thin gauzy shirt is not enough except in the warmest hours of the day. Young children especially need to have the abdomen protected.

A child's teeth must be kept clean; they should be thoroughly brushed night and morning. Many people think that because the first teeth will soon drop out, they are of little importance. On the contrary, their care is of the greatest importance to the health and comfort of the child. Care of the teeth prevents toothache, sore mouth, fever, and various stomach disorders.

A child's nose must receive attention many times through the day, and must be cleaned out thoroughly night and morning, so that not only may he breathe through his nose—a thing which is of itself very important—but in order that he may get rid of the mucus, which catches disease germs. Every child should be taught the use of the handkerchief and be made to carry his own and use it properly.

If a child breathes through his mouth instead of his nose, something is wrong, and a surgeon should make an examination at once. This is very important, for unless a child breathes properly, he cannot have strong lungs and he is therefore likely to develop tuberculosis. It may even mean that he has in his head some unnatural growth which, unless attended to at once, will cause much trouble.

If a child has weak eyes he must be taken to the best available medical man for treatment.

Nobody should be permitted to work charms over a sick child or tie strings about his neck, wrists, and ankles to keep off disease. Girls must learn that children need very little medicine and that no medicine at all is better than the wrong kind. Putting this knowledge into practice would save many lives and would result in great comfort to people living where there is no reliable physician.

Children usually become sick because their food does not agree with them. If a child has diarrhea, it is because his food has not digested properly. In most cases he does not need medicine; and yet if he is not cared for wisely, the diarrhea will be likely to develop into something much more serious. In such a case, he should be given nothing to eat but milk for a few days and should be kept quiet.

Children often cry very much while suffering from colic. Their hands and feet are cold and their bowels are hard. The hands and feet should be put into hot water and a hot cloth laid upon the abdomen.

If the little one is fretful and cries in the night and can not sleep, he should be given regularly a warm bath before being put to bed, and care should be taken that he has clean loose sleeping clothes. If he awakens in the night, and cannot go to sleep again, it is probably mosquitoes, or other insects, or cold that is troubling him. If it is not one of these, he should be given a sponge bath and he will probably go to sleep again.

Few children get as much sleep as they need. Until they are six months old, babies should sleep sixteen hours out of the twenty-four; and from that time until they are three years old they need eleven hours. One of the most important things, one which helps to make strong men and women, is plenty of sleep during childhood. Children should be put to bed every night at a regular hour. It is very bad for them to be taken to dances and fiestas, where they are kept awake late into the night.

To have plenty of sleep, children must have beds in quiet, clean airy places. They must not be put to sleep on the floor in the room where the cooking is done, especially if slops are thrown through the bamboo floor or if the air is smoky and the floor dirty. Neither can the child get the right kind of sleep in a room where there are pigs, chickens, or dogs; or where people are talking, laughing, or smoking; or in a room where a lamp is burning.

Every child should sleep under a mosquito net. If he puts his bed-covers over his head to protect himself from mosquitoes, he breathes the same air over and over again, thus making his lungs weak and laying the foundation for tuberculosis. Moreover, if he has to fight mosquitoes all night, he will become nervous and irritable.

LESSON XVI

FOOD FOR LITTLE CHILDREN

(To be read and discussed in class)

To eat a hearty meal and then go directly to bed is not a good plan for children. They should have their heaviest food in the middle of the day; and at night they should have something light like bread and milk or rice and milk—anything that will not keep them from going directly to sleep.

Young children cannot digest certain things; therefore physicians have made a careful study of food for children. The hours for the child's food should be regular and he should not be permitted to eat between meals. Doctors agree that, until the child is eight months old, he must live on pure milk, boiled water, and a little fruit juice. A little child, although he may be eating other things, should always have all the milk he wants to drink. Most babies, when they are eight months old, may be taught to eat from a cup or from a spoon. Many children die during the teething period, and some people believe that the teething causes their death. In reality, it is a question of the food given to them at this time.

When a child is from twelve to eighteen months old, he should be fed four or five times a day. His first meal should come at 7 o'clock or earlier and he should be fed every three hours thereafter until bedtime. This would make his meal hours come at 7, 10, 1, 4, 7, or a little earlier. If the first meal comes early, or if the child seems hungry, he may be given a cup of milk late in the evening.

A child a year and a half old may be given such food as soft-boiled egg and bread, or toast soaked with soup or gravy, in addition to his milk gruel and fruit juice. Many children of this age do very well on three meals a day, but they may be fed every three hours if the mother prefers. A little child's food must always be very simple—bread or rice with milk, butter, or sirup; soups or gravies; a very little beef; chicken or mutton cut up fine; mashed potato and squash; simple puddings, such as custard or sago; and fruit, such as oranges and bananas.

Even a child five years old must be kept on a simple diet. For breakfast he may eat such things as soft-boiled egg, toast, and rice or corn-meal mush with milk. For his dinner, which should come in the middle of the day, he may have broth with rice or bread, chicken, beef, mutton, or fish cut very fine, camote or squash, and ripe fruit. His supper may be much the same as his breakfast.

How the food is prepared makes a great deal of difference in its digestibility. Some people think that all eggs are wholesome food; and it is a common sight to see a baby not big enough to walk eating a hard-boiled egg. This is one of the things a little child positively should never have. A child under six years old should never be given pork, fried meat, fried fish, fried food of any kind, sardines, hard-boiled egg, warm bread, cucumbers, green corn, coffee, guavas, nancas, or green fruits of any sort. Children should be taught to eat slowly and to chew their food carefully.

When the child eats with the family, if he is not well managed, he will cry for things which are not good for him; but if he is never permitted to choose for himself and if he is not given a taste of the foods which are not good for him, he will be glad to eat whatever is given him, especially if he is hungry.

LESSON XVII

FIRST AID IN CASE OF INJURIES, ACCIDENTS, ETC.

(To be read and discussed in class)

In case of accident, the chief requisite on all occasions is presence of mind. It is both wrong and cowardly to allow ourselves to lose our heads and scream, or to faint at the sight of blood, and to become perfectly useless in case of an accident. It is woman's duty to have her nerves so under control that she can help in time of trouble. A very important part of a woman's education is knowing how to care for the sick and the suffering.

This practical knowledge is invaluable and may be put to a test at any moment. In a thickly-settled neighborhood, hardly a day goes by without somebody's meeting with a bruise, a cut, a burn, or some more serious accident. Every woman should have the knowledge that enables her to know what to do under such circumstances and the self-control that enables her to do it properly and at the right time.

The first thing to do in case of any serious accident is to send for a surgeon; at the same time send him a written statement of what has happened, so that he may bring with him the things he may need to use. While waiting for the surgeon, the injured person should be made as comfortable as possible, and people should not be permitted to crowd around him. Many persons are lamed, made blind, or disfigured in some way for life because they have not received proper treatment at the time of an accident.

Let us consider some of the common mishaps. A sprain is the result of straining or wrenching the ligaments in a joint. Fingers, wrists, and ankles are often sprained. A bruise is an injury to the flesh caused by a blow, a pinch, or a fall.

Bruises and sprains should be bathed for some time in cold water and wrapped in cold wet cloths. There are some medicines that will take out the soreness, but cold water is nature's own remedy. Moreover, it costs nothing and is always at hand.

When bones are broken or dislocated, only a surgeon can care for them properly. The injured parts should be handled as little as possible and the patient should be kept quiet until a surgeon arrives. Cloths wrung out of cold water and applied to the injured parts will keep down the swelling and relieve the pain.

If a person eats something that poisons him, a physician should be sent for immediately. In the meantime, he should be given something to make him vomit. For example, let him drink lukewarm water with a little salt in it.

If an ant or bug gets into the ear, a few drops of coconut oil or melted lard should be poured in. This will kill the insect. Then the ear should be washed out with warm soapy water.

The stings of bees, wasps, and hornets are not serious, although they are very painful for a few minutes. To relieve the pain, wet earth or cold water should be put on at once. If the sting of the insect is left in the flesh, it should be removed before either the mud or the cold water is put on.

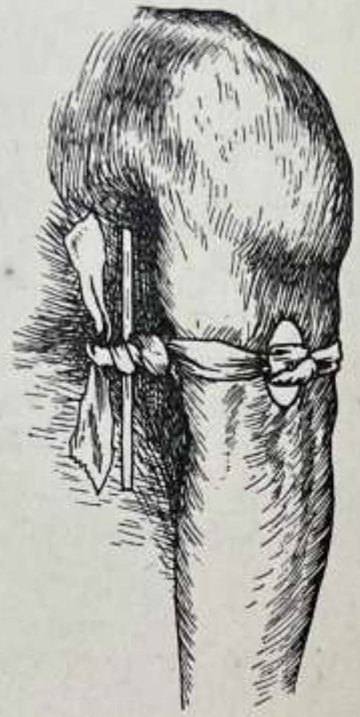
The bites of mosquitoes, fleas, or any insects which cause irritation, if rubbed with moistened salt, will very soon stop itching.

It sometimes happens that a person becomes unconscious from a fall or from weakness. He should be placed upon his back with the head as low as the feet and be given plenty of fresh air. The collar and waistband should be loosened and the patient should be fanned. Cold water may be sprinkled over the face. If he does not regain consciousness within a few minutes, a physician should be sent for.

In case of fits, generally called *epilepsy,* all the clothing should be loosened and a rolled handkerchief should be put between the teeth to prevent the tongue from being bitten. The patient should be placed with the head on a level with the feet. Provide plenty of fresh air, but give no medicine.

The object of treatment in the case of burns is to stop the pain by excluding the air. A good dressing for a burn is made of equal parts of olive oil and lime water. Soft white cloths may be dipped in coconut oil, olive oil, or clean lard mixed with lime water, and laid over the burn; or the burned surface may be covered over with the white of an egg. It is always well to send for a physician in case of a burn unless the case is clearly not a serious one. Frequently, even a small burn is deep and serious and may cause death unless treated by some one skilled in medicine.

If the clothing catches fire, the person should be laid down upon the ground, so that the flames may not rise toward the mouth and nose. The flames should be smothered with the hands, or with earth, or with blankets. The work must be done quickly or the person will die. If the body is badly burned, the clothes should not be pulled off, but should be cut away bit by bit. The blisters must not be broken.



Ready-made tourniquet in position on arm.

In case of a cut which does not bleed much, the first thing to do is to wash out the wound well with water that has been boiled and allowed to cool, or with some disinfectant prescribed by a physician. The cut should then be bound up with a clean, soft, white cloth, a pad of white cloth saturated with the solution being first placed over the wound. When the cut is long, or when the edges of the wound do not come together well, a surgeon should be summoned, as putting in a few stitches will prevent an ugly scar.

A cloth folded many times should be tied tightly over a wound that bleeds profusely. If this does not check the blood, a ligature must be made by tying a knot in a strip of cloth. This cloth should be tied around the limb above the wound with the knot directly over the artery. It should then be twisted tightly with a pencil or with a piece of bamboo. This is called a "tourniquet."

A surgeon must be called immediately, for if the blood is shut off long in this manner, gangrene is liable to set in and cause very serious trouble or even death. When a wound is not serious enough to require the assistance of a surgeon, the skin around the wound should be washed with a weak solution of carbolic acid and the torn edges brought together before the clean white cloth is put on. A colored cloth must never be put around a cut.

Wounds made by old tins, rusty nails, or bamboo, if neglected, often lead to blood poisoning and make a great deal of trouble, sometimes causing death. The wounds should be kept clean by washing them twice a day with a carbolic acid solution. This will kill the bacteria or prevent their growth. No mistake can be made in such cases by engaging the services of an experienced surgeon.

EXERCISE 10

Pretend that one of the class has upset a kettle of hot fat upon herself and is terribly burned. Go through all the motions of helping her and write a letter calling for a surgeon and telling him just what has happened.

EXERCISE 11

Pretend that the clothing of some member of the class has caught fire. Show exactly how you would help her.

EXERCISE 12

Pretend that some little child has been hit upon the head by a falling coconut. Go through all the motions that a case of the kind demands.

EXERCISE 13

Pretend that some member of the class has been stung by a bee. Actually apply the remedy.

EXERCISE 14

Mix a weak carbolic solution suitable for use on cuts.

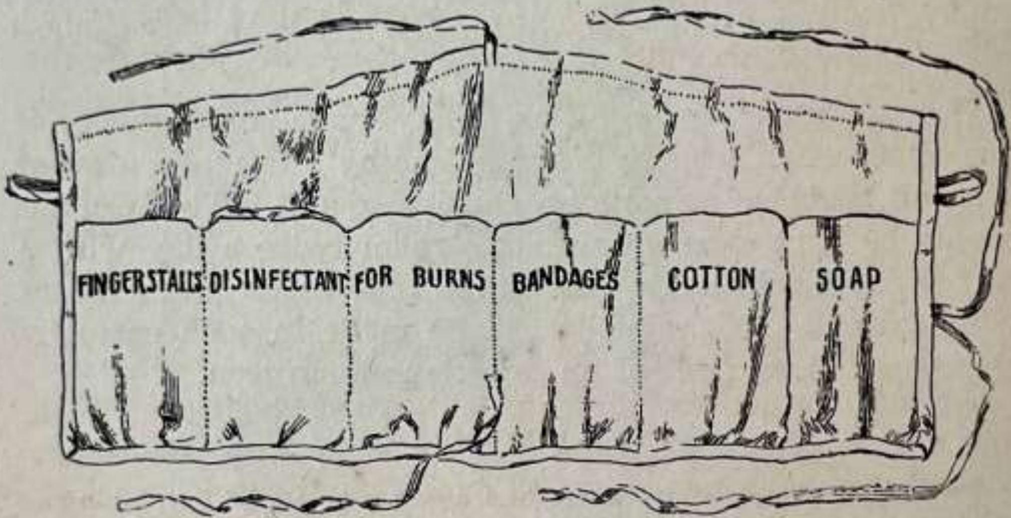
Make some lime water and mix it with olive oil. (For burns, use equal parts of oil and lime water.)

EXERCISE 15

(Make an emergency bag)

Each girl make an emergency bag for home use.

The bag is made of cañamo, 15 centimeters deep. The back is forty-five centimeters and the front fifty-two centimeters long. The two strips are bound together at the ends and across the bottom, then stitched to form several pockets.



The emergency bag.

There is a flap buttoning over the top; each pocket is marked with the name of what it contains.

One pocket holds bandages, torn strips, and clean white cloth rolled ready for use; another holds folded squares of clean soft white cloth and finger stalls; and another, antiseptic cotton carefully wrapped in paper. Other pockets hold a cake of antiseptic or vegetable oil soap, a bottle of carbolic solution ready for use, and a bottle of olive oil or coconut oil mixed with lime water, ready for burns.

EXERCISE 16

Why should boiled water be used for washing a wound or a sore?

Why should a soft white cloth be used in binding up a wound?

Why should a wound be covered?

Put a ligature on the wrist of one of the other members of the class.

How do you recognize carbolic acid?

What danger is there in having this medicine in the home?

What precautions should be taken concerning it?

Name some other disinfectants.

What do you understand by "blood poisoning?"

Suppose you were at home alone with your small brother and he should cut his foot severely with a bolo. Tell exactly what you would do for him.

Do you know of any herbs that have healing properties? Make inquiries at home concerning common remedies for cuts, burns, bruises, and sprains, and give in class any information which you may thus be able to gather.

LESSON XVIII

CHOLERA

(To be read and discussed in class)

The most important thing to be learned about cholera is how *not* to get it; because if there is no good physician at hand, not very much can be done for a person attacked by this dread disease. A certain physician has wisely said that *common sense and boiled water will prevent most of the cholera in the Philippines.*

Most of the water in these Islands contains disease germs. Boiling will kill them and render them harmless. In time of a cholera epidemic, unboiled water should *never* be used unless it comes from an artesian well.

Good fruit and vegetables which are neither too ripe nor too green should be an everyday article of diet for every person all through his adult life; but they should always be thoroughly washed, first with fresh water, then with boiled water, before being eaten. This makes extra work, of course; but it is better to take a little precaution than to be sick. In time of cholera no uncooked vegetables should ever be eaten. Green corn and other foods that are sold ready cooked at the tiendas or in the markets are especially dangerous during a cholera epidemic.

The health officials say that they have learned to always look for cases of cholera for two or three days following special cockpit days and other celebrations when people have assembled in large crowds and eaten large quantities of ready cooked and infected foods. You have all seen how some people, no matter how dirty their hands are, go about the tiendas and markets touching the foods, picking out what they want to buy for themselves, and leaving millions of germs on the rest to be purchased and eaten by others. This practice of handling food should be discouraged—even prohibited by law.

All foods should be carefully protected from flies and other insects; for they carry the cholera germs on their feet, and scatter them far and near. Think of how the dirty flies, that feed at the dumping ground of the town, or on animal, or human excreta, come into the market or into your house, walk about on your food, on the dishes, on the baby's bottle, and even on his lips, wiping their filthy feet and leaving great numbers of disease germs wherever they go!

The best way to dispose of garbage is to burn it. All wet places about the house should be filled up, and a germicide of some sort should be sprinkled about.

When a person is taken with cholera, the first thing to be done is to send all the other people out of the house, in order that as few as possible may be endangered. At the same time, send for a physician. The presidents of the municipal and provincial boards of health are paid by the Government, and may be called without charge.

Some disinfectant must be used, but the physician will tell how to do this and will prescribe medicine for the patient. All the vomited material from the sick person, as well as his defecations, must be treated with this disinfectant in order to kill the germs.

The patient must have plenty of fresh air, but at the same time he must be kept warm. He must not be allowed to get cold, but must be warmed with blankets, hot cloths, hot stones, or bottles of hot water laid upon his abdomen, stomach, and chest. Bags filled with sand or salt should be heated and placed about him.

Plenty of boiling water must be kept available all the time, and some responsible person must be assigned to the duty of keeping up the supply.

Owing to the vomiting and nausea, it is usually impossible to give any medicine or food. It is best therefore not to try.

Enemas of very warm salt solution should be given. This not only makes the patient warmer and stronger, but it replaces some of the body fluids lost by vomiting and purging. One teaspoonful of clean table salt to a liter of boiled water is the right proportion. In giving an enema, the patient should be laid upon the left side, the hips raised high on a pillow so that the solution may be retained. It must be given very, very slowly; otherwise it will pass out and will do no good.

If there is little or no urine, hot cloths should be placed over the kidneys and bladders, and hot blankets put about the patient to make him perspire. Also use hot water bottles and hot stones to keep him warm. At the same time a cold wet towel must be placed upon his head.

A cholera patient must be kept QUIET. Moving him about only increases the vomiting and the purging and uses up his strength. Before many hours, the patient reaches the stage in the disease known as "collapse." If he can be kept strong enough to live through this, and if the urine is plentiful, he will recover. If not, there is no help.

As soon as the patient recovers; or, if he dies, as soon as the body is removed from the house; everything that has been used about him must be burned, unless it can be disinfected by boiling. The germs of the disease are all over the things that came into contact with the patient, and must be destroyed. Otherwise, the other members of the family are endangered. Cleanse the entire house, and the danger will be past.

Every cholera case should be reported at once, both for the sake of the patient and to keep the disease from spreading. The health officers have had experience, and they have at hand the things necessary to care for the patient properly and to protect others from the disease.

Above all things, remember that the more cleanly a nation is, the fewer infectious diseases there are. It is a mark of civilization to keep down disease; therefore, the health officers should be assisted in their efforts to keep the city and the country free from cholera. When they try to clean up a town or a barrio, or when they say that certain foods are dangerous and must not be sold in the markets, everybody should give heed to them, rather than oppose the very things that are for the individual and public good. Very few health officers or physicians die of cholera. They know how to care for themselves; and it is for the sake of other people that they enforce the laws and the regulations regarding sanitation and the public health.

LESSON XIX

CONCERNING PUBLIC HEALTH

(To be read and discussed in class)

Health is the natural and normal condition of the body; and whenever a person gets sick, it is because he has in some way broken the laws which govern health.

No one wishes to suffer or to have his loved ones exposed to cholera, smallpox, plague, leprosy, tuberculosis, or any other contagion. Therefore it is the duty of everybody to help in the great work of suppressing disease.

All contagious and infectious diseases are preventable. So far as is known, each case comes from some other case, near or far; therefore, it follows that epidemics are due to carelessness or ignorance on the part of those who are sick or those who care for the sick. Lack of precaution on the part of those who take the disease also always helps to spread the contagion.

Everything that is likely to cause sickness must be properly disposed of, and everybody ought to do his part in the work of preventing disease. But the world learned long ago that everybody's business is nobody's business—that if a special work is to be done, certain persons must be appointed to do it and to be held responsible for its being done rightly. Caring for the public health is a very important work, one that all governments recognize.

Generally a committee or board is appointed in every town, this group of officials to be responsible for the public health of the town. This committee is called the Board of Health.

The officers of the board of health have a right to vaccinate, to quarantine, to isolate persons suffering from contagious diseases, and to enter and search any house where they have reason to believe that there is anything which is a menace to the public health. It is true that they sometimes cause great inconvenience and expense, but it is better for a few to be thus annoyed than for many to suffer from disease. Intelligent, educated girls should try to overcome the dread isolation and the feeling of resentment, which are quite natural when a home is quarantined. They should also remember that if they are always diligent in keeping the house clean and free from infection, there may perhaps never be any occasion for quarantining it.

Those who are removed from their homes on account of disease will receive the best of care and they will be treated kindly and be given all the necessary comforts. Within the past few years, the world has acquired much scientific knowledge concerning contagious diseases and the means for keeping them in check, so that to-day pests and epidemics are far less common and fatal than ever before and should be less dreaded than in former times.

Girls who are educated have a special duty to perform in helping others who are not so fortunate; they should try to convince their families and friends of the necessity of following the instructions laid down by the boards of health.

Every intelligent citizen may do much to protect the public health, but this is a work especially appropriate for progressive Filipino women. Each must remember that she and her family, her house and all its contents, have an important influence upon the health of the community. She must try to maintain good health in her household, for the prevention of disease and death is a genuine contribution to the public welfare and happiness. She must cheerfully conform to all the regulations of the sanitary authorities; and if she sees anything to criticize, she should help them by calling their attention to it. She should aid in their good work by reporting cases of infectious diseases or nuisances and by explaining the work to others and loyally supporting the officers who are doing their duty.

A club of earnest intelligent women may do much to protect and promote health in their town or barrio. If they work together with the board of health, they may insist that the public water supply be kept pure. If the water is taken from the river, they should insist that the banks of the river ought not to be used as a dumping ground for the filth and waste of the town; that dead animals and filth should not be thrown into the river; and that laundry work and bathing should be done below where the drinking water is taken.

They should see to it that the milk sold is clean and pure and put up in really clean bottles; that the bakeries, the pansiterias, and the markets are reasonably clean; that the food is screened and not allowed to be handled; and that spitting in the church, in the market, and in other public places is absolutely prohibited. They should report contagious diseases, and be sure that all the people in their community are vaccinated against smallpox. They should urge people to have fresh air in the sleeping rooms. They should interest housekeepers in securing better food, and in clothing the little children properly. Such a club will find many ways to improve the general health of the community.

PART V

COURTESY

PART V—CONTENTS

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(NOTE TO TEACHERS.—The above segregation of the work by grades is only suggestive. The minimum required of Grade Five should be the reading lessons as above indicated, but the classes of this grade may be given as much as they are able to assimilate. It will be observed that the work is so planned that Grade Six classes will cover all of Part Five of this book, some of the lessons by review and some for the first time. Throughout the work of both grades, the teachers should supplement the work of this text by material derived from daily experience with her pupils or suggested by their actions, and by the use of some standard book on etiquette.)

PART V

COURTESY

GRADE FIVE

LESSON I

MANNERS

(To be read and discussed in class)

Politeness comes from the heart and is the art of making other people happy. Politeness is kindness. It is not keeping a set of fixed rules. Bowing and smiling, offering a chair, acknowledging an introduction gracefully, and a thousand and one little acts which mark a courteous person's behavior are nothing in themselves, but they do much to make life for other people pleasant. It is quite true that

> "Politeness is to do and say
> The kindest thing in the kindest way."

Anyone who is continually doing things which hurt the feelings of other people does not have good manners.

The people of every country have their own peculiar customs, but there are certain acts which mark the lady and the gentleman the world over.

The first mark of good breeding is consideration for the old and the unfortunate. Old people have peculiar ideas and are often peevish and childish; but no one who is well-bred will show any disrespect to an old person, whether prince or beggar. Young people who wish to be considered well-bred must show due respect to their elders and must revere their fathers and mothers.

Habits of politeness and kindness to the poor and the unfortunate are of great worth and are easily formed while one is young. No one should ever stare at, or call attention to, or comment upon, the infirmity of any person. People who are lame, ugly, cross-eyed, fat, or peculiar in any way are certain to be very sensitive, and for other people to show that they notice such peculiarities makes these people very unhappy.

Many persons whose appearance is marred by scars or birthmarks are so sensitive that often they do not care to go out into society at all and they live very lonely, unhappy lives. We could make such people much happier by helping them to forget that they are not just like the rest of us.

Another mark of good breeding is quiet behavior in all public places. Everyone likes to see a girl happy and full of life, but she must not behave in such a manner as to attract the attention of strangers. She should cultivate a soft, gentle voice and a quiet, happy laugh.

A well-bred person is always careful to have both clothes and body perfectly clean—not only the parts which people see, but also the underclothes and all the body. Not every girl who is clean has gentle manners; but a dirty, careless-looking girl is judged by her appearance, no matter how gentle her manners may be.

It is very ill-mannered for a person to tattle, or to repeat conversation that causes ill feeling, or to ask questions about things that do not concern her, or to pry into the private affairs of others. We should not ask such questions as: "Where are you going?", "Where have you been?", "What have you in that package?", "How much did it cost?". If the person wishes us to know, he will tell us without our questioning him.

It is no disgrace to carry a parcel along the street, but it is disgraceful for a young woman to permit her father or mother to carry a package for her which she herself is too proud to carry. It is also wrong to make her little brother or sister carry it, and absurd and snobbish to take a servant's time for this purpose, unless the package is heavy and bulky.

The right of privacy is sacred and should always be respected, especially in the home. It is exceedingly rude to peep in through windows or listen to conversation not addressed to us. There is a saying that listeners never hear any good of themselves, and such people are always despised and are called "eavesdroppers." We should never enter another's room without knocking, or go into any private room where we are not wanted. Trunks, boxes, baskets, or packages, whether locked or unlocked; and papers, notes, or letters of any kind, whether sealed or unsealed, that belong to another, are sacred and should be left alone.

It is ill-mannered in the extreme to read a written paper without permission; and no one has any respect for a person who reads a note or letter given him to deliver. When looking at another's souvenir post cards, we have no right to read what is written upon them, unless the owner asks us to do so.

It is positively indecent to use a toothbrush belonging to another. Likewise, it is rude to use any other toilet article belonging to another, unless the use has been offered by the owner. It is also rude to ask permission to use such articles.

No well-bred person will make offensive noises with the mouth, nose, fingerjoints, or any part of the body. He will never yawn openly, clean the finger nails, pick the teeth, or scratch any part of the body in company.

The nose requires care. If necessary to make a noise in cleaning it, we should excuse ourselves and go out of sight and hearing. Nothing is more offensive and disgusting than the habit of snuffling. When we cough, the mouth should be covered and the head turned aside. These are only a few of the things which girls must practice if they wish to be considered lady-like.

Another mark of good breeding is respect for the rights and property of others. No one should let herself get into the habit of borrowing from her classmates. A girl who is continually borrowing her neighbor's eraser and begging thread and paper and materials of all sorts is a class nuisance. She loses the respect of her schoolmates and, unless corrected, she will develop into a neighborhood bore.

LESSON II

FORMING GOOD HABITS

(To be read and discussed in class)

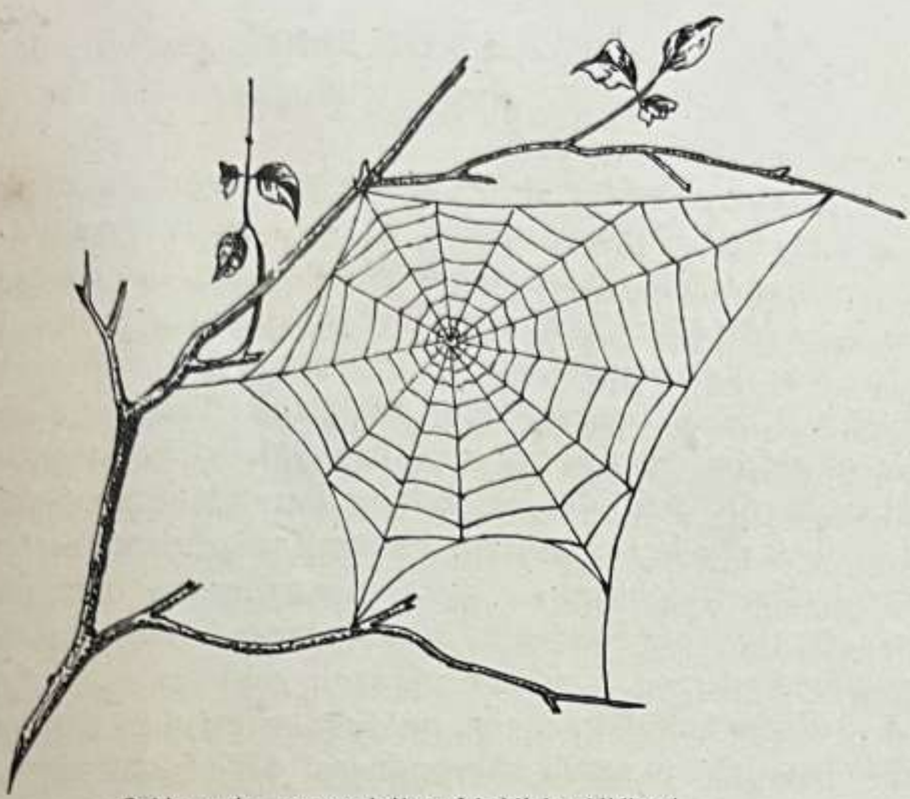
A great many things are to be learned in school besides what is printed in textbooks. It is during our school days that we form most of the habits which determine our conduct all through life.

Habits are formed by doing the same things over and over and over. Every right act helps to develop the power to choose the right; and every act of obedience helps to develop a law-abiding citizen. Every time a girl keeps her temper when things go wrong and, instead of using angry words and sulking or crying and throwing things about, conducts herself as a lady should, she strengthens her power of self-control; and it is the power of self-control that makes a character strong and beautiful. If a girl does her very best each day, she establishes the habit of right living, and makes the right the natural choice of the woman which she will become when left to herself at the close of her school days.

School life helps to establish a great many good habits, such as self-control, right thinking, consistent reasoning, fearlessness, truth-telling, politeness, punctuality, cheerfulness, self-respect, neatness, order, a sure sense of honor, the habit of overcoming obstacles, and many other good traits, all of which go to make up noble manhood and womanhood.

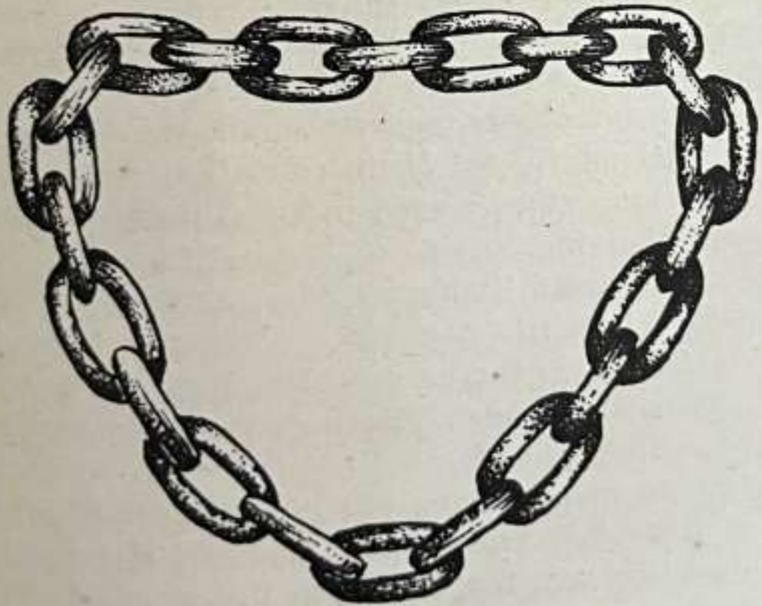
Pupils should actively assist the teacher in preventing tardiness, because tardiness leads young people to form careless, slovenly habits. It cultivates lawlessness, because the tardy pupil disregards the regulations governing the school; it promotes selfishness, since by disturbing the whole class a tardy pupil interferes with the rights of others; it creates disorder; and it permits of disrespect to those in authority. In addition to all this, there is much valuable time wasted.

Why shouldn't a girl "copy" in an examination if she wants to, since she is cheating nobody but herself? So thinks many a young culprit. Let us consider. When she



Spider web—representative of habit in childhood.

copies, she is lying—saying that she possesses certain knowledge which she does not possess; she is stealing—taking a grade that does not belong to her; and cheating—securing an advantage by employing dishonest means. All such habits lead to the pupil's dishonor. Besides the harm which she is doing to herself, she is placing her teacher in a false position; for a pupil who knows that she deserves



Iron chain—representative of habit in old age.

a better grade than the one who cheated, and who does not know that this girl did cheat, will accuse the teacher of showing favoritism.

Let us also consider some of the other points of schoolroom etiquette. In school life, as well as everywhere else, good manners are based upon respect for the rights and privileges of others. If we take the trouble to think, we realize why it is impolite to laugh and whisper and play in school. It takes the minds of the pupils from the subject they should be considering, and it requires the attention of the teacher, so that she cannot put her whole thought into the subject she is explaining. Therefore, it wastes time—not only time belonging to the one causing the disturbance, but also that of everyone in the room. No one but a thoughtless person is guilty of such selfishness.

A girl who is sulky, saucy, or disrespectful is cultivating habits that lead to much unhappiness. We must not forget to be grateful to our parents for the privilege of going to school, especially when money is scarce and the parents are obliged to make sacrifices in order to find the necessary means.

Some girls who have a little more book learning than their relatives are proud and disrespectful and even look down upon their people. They should remember that good solid common sense and the experience of age count for a great deal in the school of life, to which they have not yet even been admitted. They should remember, too, that if they have ability and opportunities, it means that they must do more for others, especially for those who made it possible for them to get their education. An education, to be a blessing, must be used to help others to nobler and better ways of living.

School days should be happy days, and all pupils should try to make school life pleasant. They should be loyal to each other and loyal to the school and should try to make their school the very best. Boys and girls must always be frank and courteous and must not forget to be dignified in their relations toward each other. They should be particularly courteous to new pupils, and should treat them as guests until they are familiar with the ways of the school.

Girls must remember that giggling is silly and that crying is babyish; and they should try at home as well as at school to be womanly and lady-like. It is always rude to laugh at the mistakes and blunders of others anywhere; but if we permit ourselves to do this over and over again in school, we shall form the habit of being rude and thoughtless of other people's feelings. This will cost us many good friendships all through life.

We should extend to our schoolmates the little everyday courtesies. We should not forget to say "good morning," "good-bye," "thank you," "excuse me," and to use other courteous expressions whenever there is occasion for them. We should not be ashamed to ask pardon, if we have offended and are truly sorry. We should not become angry with a schoolmate and refuse to speak to her. If she has habits which we do not like, we need not be intimate with her; but we should treat all our companions courteously and should never sneer at anyone.

We should not come too early to school or linger about the school grounds after dismissal. A person who loiters about on the grounds when he has no real business there is always the object of suspicion.

We should take good care of our books. We should not mark them or get them dirty, or close them over pencils, handkerchiefs, pads of paper, or anything else that will break their bindings. Every educated girl should have at least a few books of her own; she will never have the right feeling toward books until she owns some and is familiar with them, so that the characters in the books become her personal friends.

We should not mark on or deface the buildings, fences, or school furniture. A girl who sharpens her pencil on the desk shows plainly that she does not appreciate good furniture or know how to care for it properly. Pupils who are guilty of writing on fences or houses are a disgrace to their class, and the members of the class who know better should reason with them and insist that they correct their bad habits. The habit of defacing public or private property of any sort is one of the surest marks of low birth and ill breeding.

LESSON III

DRESS AND PERSONAL APPEARANCE

(To be read and discussed in class)

All women like pretty clothes and like to feel that they are well dressed and well appearing. It is natural that we should feel so, for the way we are dressed makes a great difference in the way people, especially strangers, treat us. Perhaps this is true because we have more self-pride when we are well dressed and naturally expect more deference from others, and so receive it.

We ought always to make the best appearance possible, not only when we are young, but all through life. Some girls and many middle-aged women have a mistaken idea about the importance of dress. They seem to think that it does not matter what they wear or how they look, when they are in their homes. However, it does matter. Our families, our friends, and our acquaintances do care; but even if they should not, a woman cannot retain her self-respect when she goes about dirty and unkempt. When self-pride is gone, a woman amounts to very little in the eyes of the world. Each of us owes it to herself, to her friends, and to her family to be as pleasing in person and in manner as it lies within her power to be. However, we must make sure that our appearance is comely and not ridiculous, as in the case of some people who, like turtles, wear all their worldly possessions upon their backs.

If a woman is to appear well dressed, the first thing for her to consider is neatness, not only in dress but in person. It matters little how costly and beautiful her clothes are if her skin, hair, nails, teeth, ears, and nose are not clean and well-cared for. Beautiful clothes on an ill-kept body call attention to the dirt and carelessness rather than to the beauty of the clothes. The body is to be considered first; clothes are for its protection and adornment. Rings on dirty hands with unkempt nails, or bracelets and necklaces on flesh that is scaly, feverish and dirty are very disgusting and call instant attention to neglect.

Our clothes have uses quite as important as those of covering nakedness and making us beautiful. They keep us warm and dry in wet weather and they shield us from the blistering rays of the sun. They protect us at all times from scratches, insect bites, and bruises.

A woman's clothes should always be comfortable. When they are not comfortable, they make the wearer appear awkward. A woman does not look well, no matter how expensive her clothes, if her shoes hurt her feet, or if her skirt is tied too tightly, or if her hat balances and bobs with every step she takes.

A little delicate perfume is in good taste, but it must be remembered that perfume not only does not kill a bad odor, but often only makes it worse. Perfume must never be used to conceal a body odor which is the result of uncleanliness.

Powder is a necessity in a hot climate. It makes the wearer appear cool and fresh and adds much to her comfort. However, it should be used sparingly and with the object of adding to the personal comfort and not of making the skin appear white. If girls would only believe it, they are much prettier without any powder at all than with so much that the perspiration stands like drops of milk on their faces and necks, or with so much that it gives them a ghastly, unnatural pallor.

A girl should dress simply, no matter how much money her family may have. If she is fortunate enough to own diamonds or other valuable jewels, she should not wear them to school but should keep them for special social occasions. A girl who is proud because she has beautiful clothes and jewels appears very silly. To be proud because we are better dressed than our companions shows weakness of character and a lack of thinking power, especially in a young person who has neither earned nor made her clothes, and who is entirely dependent upon the generous gifts of older people. It is also in very bad taste for a woman in moderate circumstances to dress, or try to dress, like a rich woman.

LESSON IV

TABLE MANNERS

(To be read and discussed in class)

However simple our food may be, we owe it to our claim of being civilized to eat at all times with some degree of decency. We should arrange our food on a clean table and sit down to eat it; and we should eat slowly and quietly, using knives, forks, and spoons.

These European customs are very acceptable because they are wholesome and dignified, and therefore for the best interests of the health and decency of the family. It is impossible to keep the fingers absolutely clean; and if we eat with our fingers we are sure to eat more or less dirt.

It is a very pleasant custom for the family to sit at table together. Mealtime should be the happiest time in the day, and the food should be served daintily and prepared not only so that it may taste good but that it may please the eye.

A person's everyday table manners are readily discovered when he eats in public. If we watch a number of people eating at a function, we shall see that they do not all manage to take their food with equal grace.

There is a right way to behave at the table, and all forms of table etiquette are based upon sound reason. The rules of etiquette are not made in a day or a year, but they grow out of the long-continued customs of thousands of thoughtful people. We are looking for the best ways of doing things; and if we wish to have good table manners we must eat slowly and quietly, take small bites, and not talk with the mouth full. We should sit upright at table with the feet squarely upon the floor, and in general we should not rest the arms upon the table. We should keep the left hand lying quietly in the lap when not in use. We should never put the knife to the mouth or wipe the mouth or the hands upon the tablecloth. When soup is eaten, it should be taken from the side, not the end, of the spoon. The liquid should be taken quietly, not sucked in with a lot of noise. Neither the soup nor any other food should be cooled by blowing. If it is too hot, we may stir it a little or wait for it to cool.

We should never touch the face or the hair, or scratch any part of the body, or make any noise, while eating. Refined people are more easily annoyed and disgusted at the table than at any other time.

The most of our solid food should be taken with a fork. Among Americans, the accepted custom is to use the fork like a spoon with the tines curved upward. In Europe and the European colonies, the custom is to use it with the tines curved downward. Meat, rice, vegetables, fish, and anything greasy or sticky, should be carried to the mouth on a fork. A spoon is used only for liquids or half-liquids.

Fish bones and seeds of fruits may be taken from the mouth with the fingers with as little show as possible. They should never be spit out upon the plate or floor.

Before drinking from a cup or glass, the spoon should be removed. We should be careful not to spill or drop food upon the table. Accidents will happen, but carelessness is never excusable. We should never leave the table with anything in the mouth.

Dogs and cats should be kept out of the dining room. If a pet is in the dining room, it should not be fed or played with while people are eating.

If necessary to leave the table before all have finished, one should always say to the hostess, "Please excuse me" or "May I be excused?"

LESSON V

GRACIOUSNESS IN THE HOME

(To be read and discussed in class)

There is a great difference in meaning between the words *house* and *home*. A house is a building for storing or sheltering something, but a home is a place where people live happily together. We might say that home is the spirit pervading every household just as there is a spirit pervading every living body. Not every house is a home; that is, a place of affection, peace, and rest—a congenial abiding place. Some one has said that *men build houses and women make homes;* and the little child who said that *home is where mother is* was wise, indeed, beyond his years.

When the world was young, all men were savages. None in those days were even so wise as the hill tribes of to-day which we know. Men built no houses then. Savage mothers, to be out of harm's way, crept with their babies into caves and these caves were the first homes. As the savages became more intelligent, they made rude shelters by fastening the tops of trees together. It is easy to see how our nipa and cogon houses and the roofs found in all parts of the world were suggested to the first builders by the overlapping and intertwining of branches and leaves.

We have improved our ways of living; and to-day, although we have the same needs as the savages, we have many more. Our homes are not only shelters from night and storm and wild beasts, but they protect us from the discourtesies and unkindness of people who would do us harm and from greed and quarrels. Home should be a place of mutual understanding, where there is nothing to dread or to be afraid of, no one mistrusting the other, and no bitterness. People who live together lacking love and sympathy have no real home.

In our homes are those who love us best. They have taught us and cared for us when we were too young to think for ourselves. We owe to our parents respect, care, and consideration. Surely home is the place where we should be most kind and thoughtful and most polite. We should love and honor each member of the family, recognize the rights and the personality of each, and try to make home the dearest spot on earth.

No one of us should feel that she is first, or that she has a right to be waited upon by a little brother or sister simply because she happens to be a few years older. Each of us should give and take and be ready to do as much for others as we ask them to do for us. Brothers and sisters should show as much respect for each other as for strangers and as much respect for each other's property as for that which belongs to an outsider. We never have the right to meddle with what belongs to another, no matter who the owner may be.

It is a life duty to be patient and pleasant. Selfishness and peevishness are mean and vicious, especially in people who are obliged to live intimately with each other. Family quarrels are not only vulgar, but they are actually wicked.

We should never do anything to tease or grieve anybody, if possible to avoid it. No one likes to be teased, therefore no one should tease. If there is something about which any member of the family is sensitive, the others should be courteous enough to keep quiet about it. To make fun of another, or to make him appear foolish or ridiculous or stupid, whether he is present or absent, is not conduct becoming a lady or a gentleman; and when one treats a member of his own family in such a manner, his conduct is doubly mean and contemptible.

When many people live under the same roof, unless each does his share to make all contented and happy, they can not live in harmony. One disagreeable person may destroy the peace of the home; on the other hand, one who is determined to have a happy home may do much to keep all in harmony.

EXERCISE 1

Copy and memorize these quotations.

A merry heart doeth good like a medicine.

Every time the sheep bleats, it loses a mouthful; and every time we complain, we lose a blessing.

Happiness is a mosaic composed of many smaller stones.

Pleasant words are as a honeycomb, sweet to the soul and health to the bones.

Cheerful looks make every dish a feast, and crown a welcome.

A soft answer turneth away wrath, but grievous words stir up anger.

Better is a dinner of herbs where love is, than a stalled ox and hatred therewith.

GRADE SIX

LESSON VI

Rapid Review of Lessons I, II, III, IV, and V.

LESSON VII

A SENSIBLE TALK ABOUT MARRIAGE AND HOME LIFE

(To be read and discussed in class)

We hear the phrases "pretty girl" and "beautiful señorita" so much that we cannot wonder that many girls get the notion into their heads that all that is expected of them is to dress daintily and to look pretty. It is both a pleasure and a duty to make oneself as attractive as possible; but being pretty for the few short years that nature allows women to be young and fresh is not the whole end and aim of life. Every girl who has been taught to think and to reason should take a more serious view of life.

Girls must not think that because they are not going to practice medicine or law, or build bridges, or become priests, that they will not have any use for an education. They must realize that they are not inferior to men in any way. Human beings are so constituted that man and woman are mutually dependent upon each other.

The greatest work of women is the education of her children. All the time she is caring for their bodies, she is influencing their minds, their manners, and their morals, and is either consciously or unconsciously helping them to form the habits that will govern their actions in after life. Men and women are but the mother's little children grown up.

It is just as important that a woman should understand how to run the home properly as that a man should understand the business which brings in the money to support the home. A man's business ability depends largely upon his health and his health depends in a great degree upon the everyday conditions existing in his home. If a woman does not know how to keep a home clean, what food to buy, and how to prepare it properly, her husband will not have a strong body with which to perform his work, or a brain that will enable him to think clearly.

The influence of women is really greater than is usually conceded; girls have as much to do with molding public opinion as boys have. Each has her own place among her circle of friends; and if she lives up to her noblest thoughts, if she always does the best she is capable of doing, and if she helps her companions—both boys and girls—to do the same, she will have a tremendous influence for good in the progress of the country.

A girl who has the advantages of an education ought to keep her eyes open for opportunities to put that education into practical use. She must cultivate a spirit of sympathy and helpfulness. She has learned to think for herself and to reason consistently; and she has at her command the means of finding out the why of things. If she sees or hears something that frightens her, she should not cover up her head and imagine dreadful things. She has learned to say with her tongue that there are no ghosts, no witches, no fairies; but she must have courage enough to investigate a little and prove to others that *asuang, brujas, anting-anting, sirena, wak-wak,* etc., are nothing more than creatures of the imagination—things which educated people with common sense are not afraid of. She must not talk about things, or listen to stories, that will make nervous people afraid to be alone; for it is her duty to help others to lead better, nobler, and saner lives.

Educated girls should also object to listening to the common vulgar stories so often told as jokes. They should not remain where such stories are being told; and when they have homes of their own, they should never tell such stories themselves or permit others to tell them in their presence.

Women should always remember to attend to their toilet duties in the privacy of their homes, and they should teach the children of their families to do the same. This is one of the first and surest marks of refinement. Civilized people do this, not because they are overmodest or because they are ashamed to attend to these matters, but because it is not refined or polite to do so in public.

Many school girls have an infinite capacity for chattering and saying pleasant nothings, talking for hours at a time about the most trifling matters. At thirteen, fourteen, or fifteen years of age, they go to dances and entertainments and begin to receive the attentions of young men; but girls of this age, if they are to reach a high type of womanhood and help the coming generation to be wiser than the present one, must not concern themselves with lovers and marriage. It is very thoughtless and crude to joke and tease about matters of this kind; for to do this is to jest about that which is holy and which should be spoken of only with reverence.

We know that the natural consequence of love is marriage; and a girl of fifteen cannot wisely meet all the responsibilities of married life. Neither her brain nor her body is properly developed at that age. It is very common, especially among rural people, for a woman of fifteen years to become a mother; but her organs are not fully developed, and they need years in which to grow strong and ready for the work of child-bearing. It is a great mistake for girls to marry so young; for by so doing, they injure their own health and their children can never be so strong as those whose mothers have attained to their full growth. You may pull a rosebud apart and make it look like a full-blown flower; but it will die very soon and its beauty will be lost forever. The bud needs to grow and unfold; and if left to do this in accordance with its nature, it will become a perfect flower. The girl is the bud of the woman; and if she is to become physically perfect, she must await nature's own good time. Twenty years is young enough for a girl to marry.

The young people of to-day are forming the character and determining the destiny of the nation of the future. They can decide what they want the nation to be; and by their own lives they can realize that desire. We have seen the farmer choose his seed corn from the best ears and select the rice which he is to plant from heads which are full and perfect. He does this because he wants to raise the best possible crop. Children cannot be born with strong intellect, or force of character, or bodies well-proportioned, if the parents have none of these things to give.

If all girls were to take proper care of themselves and make of themselves the strongest, the best, and the noblest women possible, there would be within a few years a great difference in the individuals of the human race. Every girl must remember that her children will inherit her faults as well as her good qualities; so it is her duty to form good traits of character for her children to inherit. It is a truth that the young people of to-day are making the world what it will be one hundred years to come. People are trying very hard to make the world better; but the time when they could have done the best work was when they were little children. If all the children from now on were truthful, honest, studious, and industrious, the men and women of the future, who will be only the children of to-day grown up, would have all these desirable qualities; and their children in turn would receive those qualities in an even greater degree as an inheritance.

There is a saying that if you wish to train up a boy to be a gentleman, you must begin with his grandfather. Suppose you begin now to train yourself as if you were your own little girl. It will not be difficult for you to decide what you want your daughter to be. You will surely want her to be virtuous, honest, truthful, and courteous. So if you find yourself lacking in any of these qualities, you must remedy the defect in yourself, if you wish your daughter to inherit from you a good character.

After your children are born, you cannot give them any different inheritance; all that you can do then is to help them to overcome any bad inherited traits. But in overcoming your own faults, you are creating a better inheritance for your children; thus your influence on their lives now is greater than it will be after they are born.

While the character of the child is in a very great degree determined by the mother's influence, still the mother is not entirely responsible for what her child is going to be. The child partakes of the nature of each parent, and so belongs equally to both; each has an equal responsibility in bringing this new soul into the world. Since this is true, it is necessary for men and boys to be as careful of their conduct as it is for women and girls.

Everybody feels that a stain on the character of a girl can never be removed. She is taught from her earliest childhood that because she is a girl she must be careful of her conduct and that she must not go to places having a bad reputation or associate with evil people. And yet she is not taught that it is just as important for a boy to live purely; nor is she taught to be so careful in her association with boys as with girls. This is all wrong.

If girls would begin now to show by their choice of associates that men are expected to conduct themselves just as properly as women, public opinion on this point would soon change. A girl should choose her boy friends with just as much care as she chooses her girl friends. Being able to dress well, to dance gracefully, and to pay pretty compliments does not make a man acceptable as a lover and a husband. Boys should be made to feel that if they are to have a girl's friendship, they must be noble, good, and true, just as they expect her to be.

If *pillos* harmed nobody but themselves, it would not seem so wicked for older people to laugh and wink and joke about them. Every girl ought to know that a man who is vile in his habits will bring suffering to his wife and children; that the immorality of fathers is to blame for idiocy among children; and that it often causes blindness, lunacy, and repulsive skin diseases of various sorts. Immorality causes much agony, both mental and physical; and it is just as important for the good of the world for men to be physically and morally sound as it is for women to be so.

LESSON VIII

VARIOUS THINGS GIRLS NEED TO KNOW

(To be read and discussed in class)

When a school dance or a public dance of any kind is given, it is necessary to have a woman teacher or some other reliable woman present as chaperon or hostess, and her name should appear on the invitations. It is also a good plan to have three married women who are well known in the society of the town to act as patronesses for such public occasions. Their names also should appear on the invitations and they should remain until the dance breaks up, and should be responsible for the dignity of the occasion. They should see that the guests enjoy themselves and that everything goes smoothly and pleasantly. School dances should begin by 9 o'clock and close promptly at midnight. Young girls should not attend without a chaperon. Boys should see that, in so far as possible, all girls who dance get a chance to do so. It is the height of impoliteness for a few selfish persons to try to monopolize the best dancers. Each should try to make the occasion an enjoyable one for all.

Young women should find something of interest to talk about at dances, dinners, and other social gatherings. They should not remain dumb—as much a part of the furnishings of the occasion as the music and the decorations. There are many pleasant nothings that have to be said on social occasions, and a girl enjoys no popularity until she learns to talk.

All of us need to learn to express ourselves. We chatter along easily enough on unimportant subjects with girls of our own age, but even with them we rarely express any real thought; and when it comes to talking with men and women whom we know to be wiser than ourselves, we often have no words and no voice. Let us learn to talk by talking sensibly to the girls of our own age. Every girl has ideals and beliefs and ambitions which are worth talking about. We have our studies in common, our home life, the life and customs of women of other countries and of other times, and the whole great outside world to interest us. Surely we can learn to talk if we will stop chattering and put a little thought into what we say.

A polite man bows to a woman when asking for a dance, or when claiming her for a dance, and both should bow and say "Thank you" when the woman resumes her seat. A woman must not refuse the invitation of one man and then accept that of another for the same dance, unless she has some good reason for so doing.

If we wish to introduce two young men, we simply mention their names as "Mr. Agana, Mr. Mendiola." That is quite enough, but if we wish to be more formal, we may say "Mr. Agana, allow me to introduce to you Mr. Mendiola." If we wish to introduce two sisters, the older one should be called, for example, "Miss Perez" and the younger one, "Miss Isabela Perez."

Generally men are introduced to women, and boys to girls; but every one, whether a man or a woman, is introduced to a person in high position, such as the Governor-General of the Philippines.

A girl should be introduced to an older woman, a boy to an older man, and a pupil to a teacher; for example, in presenting Mr. Guzman to Mrs. Lopez, it is Mrs. Lopez's name that is first mentioned—"Mrs. Lopez, Mr. Guzman," or "Mrs. Lopez, this is Mr. Guzman."

We must be careful to pronounce the names very distinctly when introducing people. If the name is not understood, one may very properly ask to have it repeated. He may say: "I beg your pardon, but I did not understand the name."

When two women are introduced, a bow and a smile from each is quite enough. It is not necessary for them to shake hands or to rise if they are seated. When two men are introduced, they usually rise and shake hands. A woman does not rise when a man is introduced to her, unless he is old, or is a very distinguished person to whom she wishes to show particular respect. A married woman may shake hands if she chooses, but it is not customary for a young girl to do so.

A lady should not forget to bow and smile and thank anyone who shows her a courtesy. When she is at a dance, and the host meets her at the entrance to the hall, gives her his arm, and escorts her to a seat, she should remember to smile and thank him. Many young women are bashful and diffident and do not know what they ought to do; and, being uncomfortable, they begin to sulk. A woman should show by her expression that she is happy and pleased with the attention she is receiving.

A girl or a woman who permits a man, particularly a man in whom she has no confidence, to laugh and talk freely and joke with her, or who accepts favors from strangers, makes herself liable to be annoyed by very unpleasant familiarities.

A girl who realizes her power and worth will not do the foolish thoughtless things that cheapen her before all the world. Every girl should learn that her life is her own and that nobody but herself is to blame if she mars it. If she has no self-respect, she must not expect others to respect her. Each must learn to take care of herself and to give no one any occasion for saying or even thinking evil of her.

It is more than wrong for a girl to receive visits or letters or favors from a married man. She must have too much self-respect to allow him any liberties, no matter how slight. Girls who accept favors of this kind must know that the very man who offers them has the greater respect for the girl who limits herself to the pleasures that are hers by right. The best educated and refined people everywhere consider it disgusting for a girl to receive marked attention from a married man.

Another very important thing for girls to learn is that a woman, in time of danger, should be as cool and brave, and should display as much nerve, as a man. There are some girls who have an idea that it is ladylike to appear nervous, to shudder at the sight of a little blood, to jump and scream when the lightning flashes, to cry and tremble and make a great fuss if a little worm gets on them, and to do other equally senseless things. If these girls realized how foolish and silly such actions appear, they would be ashamed of their weakness instead of thinking it a mark of refinement.

Boys are taught from babyhood that cowardice is a most despicable trait; if girls were taught the same, the world would gain much. Habits are formed by doing the same things over and over again. There is a proverb "Habits begin as cobwebs and end as iron chains." Natures differ more or less, and some girls are naturally of a more nervous temperament than others; but every girl can learn to control her nerves. Every time she keeps her head, and for example, instead of screaming and covering her eyes when the lightning flashes, looks at it as calmly as she can and endures it quietly; or, when a worm gets on her, if she coolly brushes it off; even though she is afraid of the lightning and abhors the worm, she strengthens her power of self-control. It is this power, more than any other one thing, that makes a capable woman. If a girl does the best of which she is capable every day, she establishes good habits for life and, when a test of character comes, she is ready to prove her worth.

Every time a girl allows herself to give way to her nerves, she weakens in herself the power of self-control; and after a time she loses this power and finds much difficulty in regaining it. She laughs and she cries and becomes hysterical with very little provocation; she is a nervous wreck, whom people despise while they pity. If she does not learn to control herself before she becomes a woman, she is sure to be a failure and a disgrace to herself.

We should cultivate that fine quality called common sense, for it brings with it many desirable things—strength of character, ambition to learn, and the ability to take advantage of the opportunities for betterment that come in our way.

We cannot gain wisdom by merely wishing to be wise. We do not gain strength in anything by wishing for it. We must study long and earnestly. Strength comes by systematic exercise, day after day, month after month. If we wish to be quick and capable and to be considered sensible, we must cultivate these qualities by thinking quickly and using good judgment in the little affairs of everyday life.

LESSON IX

EXERCISE 1

What is true courtesy?

What are some of the marks of good breeding that are universal?

What are some of the marks of good breeding peculiar to Filipinos?

EXERCISE 2

What do you think are the most important rules for general right conduct?

Why should a teacher insist upon her pupils' being clean and orderly?

What harm comes from borrowing?

EXERCISE 3

What is the difference between talking and telling?

What qualities make a girl popular?

EXERCISE 4

Recite and explain the Golden Rule.

Explain the saying "Happiness is a mosaic composed of many smaller stones."

EXERCISE 5

What things are you afraid of? Why?

What is the bravest thing you ever knew of a woman's doing?

EXERCISE 6

What is the difference between a house and a home?

What is meant by "common sense?"

Why is it wrong to tease?

What are some of the things necessary to make a happy home?

EXERCISE 7

Write five rules for correct behavior at school.

Write five rules for correct general behavior.

Write five rules for correct behavior in public places.

Write five rules for correct behavior at table.

Read and discuss these rules in class.

EXERCISE 8

Write an imaginary conversation with an American woman who calls at your home.

EXERCISE 9

Write an imaginary conversation carried on between a young woman and a young man.

EXERCISE 10

Write an imaginary conversation carried on with an American gentleman at a dance.

EXERCISE 11

Pretending that some boy friend has sent you a basket of flowers as a birthday present, write a letter acknowledging receipt and thanking him. Follow the usual rules governing letter writing.

EXERCISE 12

Introduce three of your classmates to your teacher.

Introduce a new pupil to your classmates.

What should we keep in mind when talking to a person to whom we have just been introduced?

What are some appropriate subjects to talk about to strangers?

EXERCISE 13

Make a list of the things you consider an appropriate wardrobe for a fifth grade girl and estimate the cost. The list should include all the clothing needed for one year.

EXERCISE 14

Tell what constant care is necessary to keep clothes in good condition.

Tell how and where you keep your clothes.

What things should be kept in mind when choosing school dresses? When choosing evening dresses?

Tell some pretty color combinations for dresses.

What effect does it have on the appearance of a tall slender woman to wear stripes? Checks? A short dress?

What is the effect when a short person wears large plaids? Broad stripes?

What is the effect on the appearance when a stout person wears dark colors?

What is the effect on the appearance of too much trimming on a skirt? Of a skirt trimmed across the breadths? Of a skirt trimmed up and down?

What is the effect on the appearance of wearing clothes starched stiffly? Of wearing clothes without starch?

EXERCISE 15

Spell and use these words:

affectionate
agreeable
airy
charitable
cheerful
clean
close
comfortable
complacent
congenial
considerate
convenient
ordial
critical
curious
damp
depraved
dirty
discontented
dusty
fussy
generous
gentle
haughty
healthful
helpful
inquisitive
kind
light
mischievous
moldy
neat
noble
orderly
pleasant
proud
prudent
quiet
respectful
reverent
sanitary
selfish
sightly
sincere
sullen
sympathetic
tactless
tidy
vicious
wretched

LESSON X

General review.

APPENDIXES

APPENDIX A

HOW TO COOK RICE

(NOTE.—The following recipes and instructions are taken from a pamphlet entitled "Texas and Louisiana Rice," published by the Passenger Industrial Department of the "Sunset Route" and from a pamphlet entitled "Creole Mammy Rice Recipes," published by the Rice Association of America, Crowley, Louisiana.)

The great secret of the proper cooking of rice lies in allowing plenty of water, yet not too much; in not boiling for too long a time; and in not breaking the grains by stirring during the time of boiling. The rice should be washed in three or four changes of water to remove adhering rice flour, dust, etc., and should be boiled only until the grain is well softened; after this the water should be poured off, the vessel tightly closed and the rice allowed to steam.

Practical recipe for cooking rice.

One cup of rice (well washed), three cups of boiling water, scant teaspoonful of salt, a saltspoon of lard.

Wash rice through at least six waters, or until all cloudiness is removed. Bring to the boiling point three brimful cups of water. Add the salt and the tiny bit of lard. When water is boiling briskly, add the rice from which water has been drained. The boiling process will be interrupted for a few minutes, but counting from the time it starts to boil again, it will take about fifteen minutes for the rice to fully absorb the water. During this time keep the cover on, but slightly pushed to one side. At the end of the fifteen minutes the grains should be soft, not the least gritty and the water absorbed. Remove the cover and at the same heat let dry out for five minutes. If cooking on gas stove, at the end of the five minutes lower gas and let the drying out process continue for twenty to thirty minutes longer. If cooking on a wood or coke stove, at the end of the five minutes place cooked rice on back of stove or in oven to dry out.

By cooking rice in this manner, every bit of nutriment is retained at a minimum cost of effort. Each grain will be puffed to almost three times the size of the uncooked grain. Always cook rice with a lid over the flame. On gas stoves an asbestos lid is recommended. NEVER STIR RICE WHILE COOKING. A sharp knife passed around the side of the pot after the drying process starts is recommended. If lard is objected to, it can be omitted. It is supposed to lessen the danger of burning, to prevent the water boiling over, and lends a brilliancy to the cooked product. A porcelain-lined iron pot is the best for cooking rice, as it lessens the danger of burning. However, the precaution of the lid being used reduces this danger to a minimum.

Boiled rice No. 2.

Four cupfuls of boiling water, add a teaspoonful of salt. While boiling, add gradually a cup of rice. With a fork lift it once or twice, shaking the kettle, that none of the kernels stick to the bottom. Let boil twenty minutes; remove from the fire; pour off the water, if any, and place on the back of the stove or in the oven, where it will finish swelling without burning. In this way, rice is plump and light and white.

Rice cooked with milk.

In place of water, use milk, letting it come to a boil before adding the rice. Rice cooked in this way is much richer.

Steamed rice.

To one pint of washed rice add one pint of water and one-half teaspoonful of salt. Place in a covered steamer and cook with live steam for one hour. Stir and take up with a fork to prevent gummy and lumpy appearance. Never stir rice with a spoon.

Jambalaya.

Cut one pound of pork into pieces an inch square and chop two or three onions fine; add a little red or black pepper. Put a large tablespoonful of sweet lard into a deep saucepan. When lard is hot, add the chopped pork with the onions and pepper and let them brown, stirring; then add about the same amount of chopped ham as you have of pork, and a quarter pound of chopped Vienna sausage, and anything you like to flavor. When all are nicely browned, add two quarts of hot soup stock or hot water. Let it cook about ten minutes; when boiling nicely, add cup of rice. Let boil until rice is tender, stirring frequently to keep from burning. Instead of meat, you may use cooked shrimp, fresh or salt fish (if salt fish, cook before using), cold fowl, roast beef, mutton, liver or any kind of meat.

Creole jambalaya.

One and one-half cupfuls of rice (well washed), one pound of fresh pork, one pound of sausage, one slice of ham, one-half of red pepper (remove seeds), one large tomato (this is a matter of taste), when in season two or three sweet bell peppers, one large onion (cut fine), one clove of garlic (minced), three sprigs of parsley, one sprig of mint or thyme, two ground cloves, bay or laurel leaf (crushed), one tablespoonful of butter.

Cut pork and ham in very small pieces, the sausage in rather large slices. All the rest of the ingredients minced. Brown carefully the onion and pork in the butter. When a light brown, add the ham with the other seasonings and brown together for five minutes. Then add the sausages and let cook five minutes longer, stirring constantly.

Add three quarts of hot water or perferably stock. Let boil for ten minutes and then add the washed rice and let boil for half an hour or until firm.

This is real jambalaya; but the average housekeeper of the Southern States does not make such an elaborate dish of it, the jambalaya being a method of using the left-overs. It is a favorite way of finishing up the ham scraps with scraps of veal and beef. Chicken, sausage, shrimp, and oysters all make good jambalaya, which is a name for cooking rice in a very rich stew or broth.

Gumbo.

Six large crabs, one pound of shrimp (about eighteen or twenty), three dozen okra (sliced fine), one large cup of tomatoes (cut up fine), one large spoonful of lard and flour, one large onion (cut up fine), one-half clove of garlic (minced), three or four sprigs of parsley (minced), two bay leaves, one small sprig of thyme, one red pepper (remove the seeds).

Put lard in large soup pot; and when boiling hot add flour, brown slightly, and then add onion and garlic, then the crabs quartered, then the okra sliced very fine, then the tomatoes, parsley, bay leaves, etc., lastly the shrimp. Let all stew together for at least twenty minutes, stirring constantly to avoid scorching. Add two quarts of hot water and simmer for at least an hour. When done add salt to taste. Serve with a spoonful of boiled rice in each plate. Ample for six or seven people.

Some persons never serve gumbo without ham. If used, cut up a slice fine and fry in lard before the addition of the flour. A pound of veal (cut in small pieces) is also added to the above recipe by many.

Chicken gumbo is made in the same way, substituting for the crab and shrimp a fine, fat chicken, fried previously.

Curried shrimp.

Two pounds of shrimp, one tablespoonful of lard, one tablespoonful of flour, one small onion, three sprigs of parsley minced, one bay leaf, one teaspoonful of butter, one tablespoonful of curry. When the lard is boiling hot, sift in the flour and brown slightly. Add the minced onion and brown carefully. Add the peeled shrimp and let fry until a light pink color. Then add two cupfuls of hot water, the curry, parsley, and butter, and let all stew gently for twenty minutes. Serve in a platter banked with hot boiled rice. If curry is not liked the addition of a cup of tomatoes cut into small pieces and added after the shrimp have fried will make a delicious addition to a shrimp stew. Canned shrimp may be used.

Fricassee of chicken.

Cut into joints a fine fat chicken, and season with salt and pepper mixed. Put in a deep iron saucepan a spoonful of lard, and when boiling hot put in the chicken and fry to a light brown. Remove chicken and add a sifted heaping tablespoonful of flour. Stir constantly, and when a light brown add an onion chopped very fine. Brown carefully and then add a tablespoonful of minced parsley, a half clove of garlic minced, and a crushed bay leaf. If tomato is used, add one at this time chopped fine. Return the chicken and let all stew together for ten minutes, adding a teaspoonful of butter if desired. Now add a pint and a half of hot water and let simmer for an hour or until the chicken is tender. Serve with rice.

The addition of half a can of mushrooms and a wine glass of sherry gives a result which is much appreciated by *bons vivants.* Do not add the wine until just before serving.

Daube.

In a deep iron saucepan melt a large spoonful of lard. When boiling hot place in it a three or four pound round of veal or beef (preferably veal). Let the meat brown well, taking care not to scorch. When browned remove the meat and sift into the lard a large spoonful of flour. Brown slightly and then add a large onion, cut fine, which brown very carefully, stirring constantly. Then add two large tomatoes cut in small pieces, or a cupful of canned tomatoes, half a clove of garlic minced, the parsley, the butter, bay leaf and the half of a red pepper from which seeds have been removed. Let all stew together, stirring carefully for ten minutes or more, and then add two cupfuls of hot water or stock. Stirring constantly, let it come to a full boil; then return the meat and place at back of stove to simmer for an hour and a half, bearing in mind the old French caution that a "daube boiled is a daube spoiled." If the gravy boils away too fast or becomes too thick, add more water (hot). Serve with boiled rice.

Rice soup.

Add a cupful of boiled rice to one quart of heated soup stock. Stir until it comes to a boil, season with pepper, salt and parsley or anything you like.

Consommé of rice.

Take canned or home-prepared consomme or stock; heat it and pour over boiled rice No. 2.

Rice and tomato soup.

Brown carefully in a saucepan a spoonful of butter and a spoonful of minced onion. When a golden brown, add a quart of tomatoes cut up fine and let stew thoroughly. Pass through a sieve to remove seeds and peeling. Add the tomatoes to two quarts of beef stock. When boiling hard, add a half cupful of well-washed rice and let boil for fifteen minutes or until rice is soft. Chop up fine or pass through a meat cutter some of the soup meat and add to the soup.

A half cupful of rice well washed, added fifteen or twenty minutes before serving the soup, makes a pleasant change from barley, vermicelli, etc., the usual thickenings employed to vary the soup menu.

Many soups, after serving, can be improved by adding a spoonful or two of hot boiled rice.

Rice with vegetables.

Place a soup bone in three quarts of water for one hour. Let it gradually simmer for two hours. One-half cupful each of chopped onion, cabbage, carrot, tomatoes, or any vegetables desired, three cloves, a pinch of cayenne, red or black pepper, and one and one-half teaspoonfuls of salt. Add these to the simmering meat and let boil; then add a cupful of cooked rice. Boil, stirring occasionally. When the kettle is closely covered there is little need of adding water; if it is necessary to use more water, it must be boiling.

Rice and tomatoes.

Stew in a pint of water seven or eight large tomatoes with a half pound of bacon, half an onion (cut up), and a teaspoonful of salt, until tomatoes are nearly cooked. Add a pint of rice that has been thoroughly washed and boil or steam until the rice grains are soft. Stir occasionally with a fork to keep tomatoes mixed. Serve either plain or with gravy.

Okra pillau.

One quart of okra, one pound of bacon, half an onion. Slice the bacon, cut up the okra and onion as for soup, and fry together until light brown. Then put in a little over one quart of water and add a pint of washed rice. Boil or steam all together until the rice is well done. Stir and take up with a fork.

Chicken and rice.

Wash well one-half cupful of rice, and steam it with a cupful and a half of milk; cook until the milk is all absorbed, and the rice soft; add a pinch of salt and white pepper, a tablespoonful of butter and a beaten egg. Mix well, and spread as lining in small custard cups or muffin pans. Have the chicken chopped fine, well seasoned, and wet with gravy or warm milk. Fill the centers of the pans, cover with rice and bake in a pan of boiling water in a moderate oven. They must cook about twenty minutes. Turn out on a platter, garnish with chopped parsley and hard-boiled eggs, and surround with white sauce.

Japanese enshi.

A cupful of cooked rice; when boiling add any salt fish; cook until done, turn out on a platter and pour over it a mayonnaise. Any cooked fish will answer in place of salt fish.

Red beans and rice.

(A famous Creole combination.)

Soak over night or for at least six hours one-half kilo of red beans. Then simmer for at least four hours in two full liters of water. The beans will then be quite soft; add a teaspoonful of salt, a teaspoonful of butter (or half lard and half butter), a small onion (minced), and half a red pepper, and let the simmering process continue for two hours longer.

One-half kilo of salt meat (scalded) is often substituted for the above seasoning, not excluding the onion. The minced onion entirely disappears in the simmering and makes a delicious seasoning.

Serve with boiled rice, and the combination is not only good but represents a perfect food value—a complete ration.

Rice egg balls.

Boil hard five eggs, remove the shells, and put through potato ricer or a sieve, with an equal amount of boiled rice. Season with salt, pepper, and butter. Make into balls and dip into raw egg; then put in crumbs, and fry in deep, hot fat. Drain and place on small pieces of buttered toast, and pour melted butter over the whole.

Rice omelet.

Beat separately the whites and yolks of three eggs, add to the yolks one-third cupful of milk, one-half cup of rice, two tablespoonfuls of butter, a little salt and pepper, and lastly the whites. Cook over a gentle fire.

Fried rice.

A cupful of cold rice heated in milk or water. While warm stir in two eggs and a piece of butter. Make into small cakes; roll alternately in cracker crumbs and white of eggs or butter; and fry in deep, hot fat.

Rice and toasted cheese.

Cut squares of cold boiled rice and fry in butter until a rich brown. Cut cheese into squares about half as large, hold on a fork to the fire, and when softened place quickly on the square of fried rice.

Fruit croquettes.

Cupful of boiled rice, half cup of flour, teaspoonful of baking powder; moisten and thoroughly mix with a beaten egg and milk enough to make it as thick as biscuit dough. Grease a plate, and on it put a large spoonful of this mixture, spreading it to a half inch in thickness. Upon this put any fresh fruit, such as sliced apples, peaches, pears, cherries, blueberries, or any kind of cooked fruit; bring over the edges and pinch together. Lift on a ladle and roll alternately in egg and crumbs, then drop in deep, hot fat and fry. Serve with powdered sugar and cream.

Rice fritters.

One cupful of boiled rice, one cupful flour, one cupful milk, three eggs, butter half the size of an egg. Place teaspoonful of lard in the skillet, drop into it the mixture, being careful to keep each separate. Turn with a griddle-cake shovel and serve with maple sirup.

Rice snowballs.

One cupful of rice, boiled and cooled; whites of three eggs; three spoonfuls of sugar and one teaspoonful of melted butter; mix thoroughly and form into balls. Set upon a flat, low dish, place in the oven and bake without browning about ten minutes. Pour over this the whites of three eggs beaten dry, to which three teaspoonfuls of pulverized sugar and a half teaspoonful of lemon extract are added. Set in a cold oven to just dry and not brown, and serve with whipped cream.

Rice gems.

Take a pint of boiled or steamed rice left from dinner and cover with water over night. In the morning add one pint of wheat flour, two eggs and a teaspoonful of butter, salt, yeast powder, and milk enough to make it the consistency of custard. Bake in patty pans.

Rice-flour gems.

Separate the white of an egg from the yolk and beat the yolk until light. Then add one cupful of buttermilk or one cupful of sour milk (if sour milk is used, add more butter); stir into the milk a teaspoonful of soda and a half teaspoonful of salt; beat and add one cupful of sifted rice-cake flour; beat until thoroughly incorporated, then fold in the beaten whites of the eggs. Bake in heated gem pans fifteen minutes.

Rice-flour bread.

Two cupfuls of buttermilk or sour milk. Stir into this one and one-half teaspoonfuls of soda and a saltspoonful of salt; then add two cupfuls of sifted rice flour and a large teaspoonful of melted butter; beat two minutes and pour into a buttered tin can or pail having a tight cover. Set into boiling water and boil continuously for two hours. Always replenish the kettle with boiling water. This comes out a rich brown loaf.

Rice-flour steamed bread.

Into two cupfuls of buttermilk or sour milk stir one and one-half teaspoonfuls of soda, a heaping saltspoonful of salt, and a tablespoonful of sugar. Then add two cupfuls of rice flour, a teaspoonful of melted butter (using more if sour milk is used), and a cupful of washed and dried currants or any other fruit, cherries being preferred. Thoroughly mix and pour into a well-buttered can or pail, which has a tight cover. Set in boiling water and boil continuously for two hours. Add boiling water to the kettle as needed.

Rice oven bread.

One-fourth of a pound of rice boiled very soft, three-fourths of a pound of wheat flour, one gill of yeast, one gill of milk, and a little salt. Bake in a pan in a moderate oven.

Rice-flour muffins.

One and one-half cupfuls of rice flour, two cupfuls of wheat flour, a little salt, and one and one-half tablespoonfuls of baking powder. Sift these thoroughly together and add one pint of sweet milk, a little butter, and one well-beaten egg. Bake in muffin ring or gem pans.

Custard pudding.

Mix together one cupful of cooked rice, four well-beaten eggs, one small cupful of sugar, a pinch of salt and a little grated nutmeg. Add two cupfuls of milk, let it get hot on top of the stove, then bake in a moderate oven till firm. Make a meringue with the whites of two eggs and two tablespoonfuls of white sugar and spread over the top; brown in the oven.

Rice custard.

One cupful of boiled rice, two eggs, two cupfuls of milk, half cup of sugar, a teaspoonful of butter, vanilla or nutmeg to taste.

Beat eggs and sugar and butter together. Pass the boiled rice through a meat grinder with a fine cutter or through a coarse sieve. Add sugar and butter to the beaten eggs then add hot milk and stir thoroughly. Sprinkle with nutmeg or add vanilla and bake in a pan of water until brown.

Unsweetened rice custard.

To one cupful of boiled rice mashed to a paste, add one egg and beat thoroughly; then add a cupful of milk, or milk and water, or water, a teaspoonful of butter, salt, and pepper. Thoroughly mix and bake until brown. Grated cheese makes a delicious addition to this custard.

Rice waffles.

One cupful of cold boiled rice pressed through a sieve. One cupful of flour, half a teaspoonful of salt, tablespoonful of sugar, teaspoonful and a half of baking powder, two eggs, heaping teaspoonful of butter, and sweet milk enough to bind. First rub the butter into the sugar; sift together the flour, salt and baking powder; add these to the sugar and butter; then add the yolks of eggs and the rice; thin this with milk to the consistency of cake batter; fold into it the beaten whites of the eggs. Have the waffle irons hot and carefully greased; fill two-thirds full, close, and turn when brown.

Rice waffles.

Three cupfuls of sifted flour, three cupfuls of boiled rice, one cupful of milk (or half water), one teaspoonful of butter, one teaspoonful of yeast powder, salt to taste, three eggs. Mix salt and yeast powder into flour and add the butter. Into the well-beaten yolks add the milk. Mix the milk and eggs into the flour. Now stir in boiled rice and add the well-beaten whites. Cook immediately.

Rice batter cakes.

Made on the exact proportion of the waffles recipe except an additional half cup of milk or half water and milk.

Rice pudding without eggs.

Put into a well-buttered pan half a pound of rice, well washed; pour over it three pints of cold milk, sweeten and flavor to taste; put a little butter and nutmeg over the top. Bake two and one-half hours in a slow oven.

Chocolate rice pudding.

One quart of sweet milk, three ounces grated chocolate, one cupful of warm boiled rice, one cupful of sugar, yolks of four eggs. Scald together the milk and chocolate, let cool, then add to the rice with the eggs and sugar, and bake. When done, spread the well-beaten whites and four tablespoonfuls of sugar over the top and brown. Serve with whipped cream.

Rice pie.

With good paste line a deep pie pan, boil a half cup of rice in half a pint of milk and water until very soft, and rub through a sieve; add half a pint of cream, three beaten eggs, a pinch of salt and a cupful of sugar. Pour into the paste-lined tins and bake twenty minutes.

Rice orange or lemon pie.

Cupful sugar, yolks of three eggs, one teaspoonful of butter, three teaspoonfuls of sweet milk, two teaspoonfuls of boiled rice mashed fine, grated rind and juice of one orange or lemon. Beat all together, pour into lined pie pan, and bake. When done, spread with meringue of whites of eggs and sugar, and brown.

Rice molasses pie.

Into a cup and a half of molasses stir one teaspoonful of soda until white; add one-half cup of finely mashed boiled rice; a cup of sour cream and a tablespoonful of butter; and three well-beaten eggs. Bake with two crusts. This is sufficient for two pies.

Rice chocolate pie.

One quart of milk, yolks of two eggs, four tablespoonfuls boiled rice put through a sieve, two squares of chocolate melted, and one cupful of sugar. Scald the milk in a double kettle, add the eggs, rice, chocolate and sugar, and stir until thickened slightly. Bake in under crust and cover with meringue.

Rice sponge cake.

Four eggs (leaving out the white of one), two cupfuls of sugar, three cupfuls of rice flour, three-fourths cup of boiling water, saltspoonful of salt, one and one-half teaspoonfuls baking powder. Cream the sugar and yolks together, add boiling water and flour (into which the baking powder and salt have been thoroughly sifted), and flavor with half a teaspoonful of vanilla. Put into a square tin and bake thirty minutes. Frost while warm.

Rice pound cake.

One pound rice flour, half pound of butter, one pound of sugar, ten eggs, the juice of one lemon. Cream the butter and sugar together, add the yolks well-beaten with the lemon juice, then add gradually the flour (into which three teaspoonfuls of baking powder have been thoroughly sifted). Lastly, fold in the whites, beaten till dry. Bake in a moderate oven for the first half hour; then gradually increase the heat. Bake an hour.

Rice-flour rolls.

Dissolve a cake of compressed yeast in two tablespoonfuls of water. When thoroughly dissolved add a cupful of sweet milk and the same amount of warm water (mix before adding) making a pint of wetting (this must be warm, but not hot); also add a teaspoonful of salt; now add enough rice flour to make it a stiff batter. Upon the molding board put a bed of wheat flour, and on this knead the rice mixture to a firm loaf. Knead it ten or fifteen minutes, adding flour as is required; then put it into a well-greased bowl; brush the top over with butter, cover closely and stand in a warm place; let it rise about three hours. Again place it upon a molding board; make it into rolls, place in a pan, brush over with butter and let rise until twice their size—about one hour. Bake in a quick oven twenty-five or thirty minutes.

Rice floating island.

One cupful of sweet milk, one tablespoonful of melted butter, one and one-half tablespoonfuls of sugar, a pinch of salt, the yolk of one egg, beaten, and a half cup of rice flour—cooked together ten minutes. This forms a soft custard. As soon as cooled a little, pour into a deep glass dish and set away to cool. Beat the whites of two eggs to a stiff froth; sweeten with two spoonfuls of pulverized sugar, adding a little extract; place in spoonfuls over the surface of the custard; and upon each of the islands put a small piece of currant jelly.

Rice-flour steam pudding.

Beat the yolk of an egg in a bowl; add a cupful of buttermilk in which a teaspoonful of soda has been stirred, a teaspoonful of salt, a tablespoonful of sugar, and a tablespoonful of butter. Into this mixture stir a cupful of rice flour. Beat, then add beaten white of egg. Pour into a well-buttered tin can or pail a part of the mixture, then add more butter and some prunes, using for this quantity of butter about a dozen prunes. (Any other fruit may be used, as bananas, peaches, or, best of all, cherries.) Cover the can closely, set it in boiling water, and keep boiling two hours or more. When ready to serve, open the can and turn out the rich brown loaf. Cut it into slices and serve with the following sauce: To one cupful of sweet milk heated in a shallow pan, add a teaspoonful of sugar, a tablespoonful of butter, and a pinch of salt. Wet one and one-half tablespoonfuls of rice flour with a little milk, stir into the heated milk, and cook fifteen minutes. Remove from the stove and season with extract.

Rice-flour blanc-mange.

Take four ounces of rice flour, three ounces of sugar, a little extract, and two ounces of fresh butter. Add one quart of milk and boil from fifteen to twenty minutes till it forms a smooth paste, not too thick. Then pour into a mold, previously buttered. Serve when cold with cream or preserved fruit.

Rice invalid dish.

Butter a common glass (previously warmed) and line with warm, boiled rice; into it pour the stiffly beaten white of an egg, to which a pinch of salt has been added; on the top lay the unbroken yolk. Set the glass in warm water, let come to a boil and cook just long enough to set the white. Lay a doily on a small plate and set the glass on this, and put beside it a piece of dry toast.

Rice jelly.

Mix a heaping tablespoonful of rice flour with enough cold water to make a smooth paste; add a scant pint of boiling water sweetened with two tablespoonfuls of sugar, and boil until clear. Flavor with lemon juice and mold.

Rice water.

Mix one tablespoonful of rice flour with enough cold water to make a smooth paste; add two pints boiling water; sweeten and boil till clear. Cool on ice and serve very cold, but not iced.

Rice water for babies and invalids.

Boil one cupful of well-washed rice in three-fourths of a gallon of water until quantity is reduced to about three cups. Strain.

Serve the rice water in nursing bottle in the proportion of two-thirds rice water to one-third cow's milk. If the child is delicate or feverish and cannot digest milk, serve the rice water alone, sweetened or salted to taste. Above proportions may be reduced or increased according to need.

Rice stuffings.

Cold boiled rice may be substituted to advantage wherever bread is used in stuffings.

Rice border.

Boiled rice banked by spoonfuls around the dish is what is meant by a rice border.

Rice left-overs.

There is no vegetable that is so useful as a "left-over." Rice can be reheated and in every respect equals the freshly cooked grain.

This makes it invaluable as a breakfast food, as it can be prepared at the dinner meal and in five minutes be ready for breakfast.

To reheat rice, pour over a quantity corresponding to what a cupful of raw rice yields, a scant half cup of boiling water and let thoroughly heat without putting on a cover. Or place rice in colander over a pot of boiling water. In five minutes it will be heated.

Rice cooked in milk.

A very luxurious way of cooking rice is to substitute milk for water. Boil the milk before adding the rice and proceed as in directions for practical cooking of rice, page 275.

Rice for breakfast.

Boiled rice served with milk or cream after the fashion of the ordinary breakfast foods, will be found to compare favorably with any of the much-advertised cereals.

APPENDIX B

GLOSSARY OF CERTAIN NATIVE AND OTHER NAMES AND PHRASES USED IN THIS BOOK

Abaca (*Musa textilis* Neé). Filipino name for the plant from which abaca (commercially known as "Manila hemp") is extracted.

Abas. Spanish-Filipino name for a large flat edible bean very similar to the kidney-bean.

Alibangbang. Edible catkins borne on a tree of the same name. Used for making salads.

Amargoso (*Momordica balsamina* L.). Spanish-Filipino name. The rough elongated fruit is very bitter and is borne upon a slender herbaceous vine. Also called "ampaláya," "ampaléa," "apaláya," "margoso," and "pálla" in Tagalog; "apália" in Pampangan; and "palía" and "sampalía" in Visayan.

Anting-anting. A sort of charm or amulet worn by certain people in the belief that it renders them immune to danger, especially to the weapons of an enemy.

Asuang. Tagalog name for an imaginary being variously described, but usually thought of as having wings and the habit of entering the house while the inmates are asleep and sucking their blood, leaving them lifeless. Compare "vampire."

Bagóong. An article of food very common in all parts of the Philippines. It is made of small fish such as sardines, silver-sides, and anchovies; of shell-fish such as oysters and small shrimp; of the roe of fish, particularly of the mullets; and of fish entrails. The material is first mixed with a generous amount of salt and then left for some days to ferment, after which it is worked with the hands and sometimes ground fine. Coloring matter is usually added. Similar to, if not identical with, the "ginamos" of the Visayans.

Bruja. The Spanish for "witch."

Calabaza blanca. A long thin white gourd-like squash.

Camote (*Ipomoea batatas* L.). Spanish-Filipino name for a tuber very similar to the sweet potato.

Carajay. An iron frying-pan in general use throughout the Philippines. The outer surface is convex and the inner surface concave, so that whatever is put in gravitates toward the center. Particularly adapted for frying in deep fat.

Caramelo. A light brown candy, or rather sugar cake, sold everywhere in the Philippines. Made of brown sugar, white of egg, and other minor ingredients.

Coco especial. Once perhaps a mere trade-mark. Now the name generally given to the better grades of cheap muslin.

Cogon. The tall grass that covers the dry portions of the Philippine lowlands. Edge of leaf has fine saw-teeth. Good pasture when tender. When full-grown, much used for roofing. A good grade of paper is also made from cogon.

Dulce. Spanish name for any dish of sweets.

Endive (*Chicorium endivia*). A cultivated herb related to chicory. Its finely divided and much curled leaves, when blanched, are used for salads. A relative of lettuce.

Flan. Spanish name for custard.

Gabi (*Colocasia antiquorum* Schott). Tagalog, Visayan, Pampangan, and Cagayan name for a tall coarse herb with an edible tuberous root. Identical with the Hawaiian plant from which "poi" is made. Many species and very variable. Also called "abálong," "apípi," "badíang," "dagmáy," "gávay," "gandús," "galíang," "lagváy," etc. English "taro."

Ganta. A "dry" measure in common use throughout the Philippines. One twenty-fifth part of a cavan (the cavan is approximately two bushels). A ganta contains 3 liters.

Gulaman. Native name for the Spanish *alga gelatinosa.* A kind of sea-weed used in medicine as a pectoral and antidysenteric remedy. Also used in making agar cultures and jellies. Seaweed gelatin.

Ilang-ilang (*Cananga odorata* H. and Th.). Tagalog, Visayan, and Ilocano name for a tree very common in the vicinity of towns, the flowers of which yield a valuable perfume. Also called "angílang," and "álang-ílang."

Is-ís (*Ficus sinuosa* Miq.). Tagalog and Visayan name for a shrub with harsh sandpaper-like leaves, which are used for cleaning dishes, furniture, etc. Called "alásas" in Pampangan. Also called "ásis."

Kapok (*Ceiba pentandra* Gaertn.). Tree very common in the Philippines, with soft white wood, straight smooth trunk, and few branches, which extend at right angles from the trunk. Bears many pods containing an abundance of cotton-like fiber used for stuffing pillows, mattresses, etc. Also called "bulak," "dóldol," "bóboy," "cáyo," and "cápa-sáñglay." Often called the "cotton tree."

Katúray (*Sesbania grándiflora* Pers.). Tagalog name for a small tree belonging to the acacias and having large white flowers and slender pods a foot in length. Flowers edible and used for making a salad. Visayan name "gáway-gáway."

Latundan. A species of banana usually cooked to render it serviceable as food.

Laurél. A name applied to certain kinds of cured leaves to be purchased at the tiendas and used as a condiment in cooking fish, meats, etc. The leaves of cinnamon are often cured and used for this purpose.

Lime (*Citrus acida* Roxb.). A small globe-shaped greenish-yellow fruit borne upon a tree resembling the lemon tree. The fruit closely resembles the lemon and the juice is extensively used in making lemonade and for mixing with tea, foods, etc. Various forms are called "calamondíng," "limoncito," "daláyap," "dáyap," "búyag," and "calamansí." (The last name is also applied by the Tagalogs to a variety of orange.)

Lukban (*Citrus decumana* Linn.). Tagalog name for the Philippine pomelo. Visayan name, "cabúgao." Also called "suhá" in Tagalog. Member of the orange family.

Maguey (*Agave cantala* Rox.). One species of agave. Related to sisal, but maguey has spines along the edges of the leaves. Cultivated for the fiber which the leaf yields, which is used for purposes similar to those for which abacá is used.

Miki. Filipino or Chinese noodles.

Mildew. Popularly, any whitish or spotted discoloration caused by parasitic fungi on vegetable matter or on manufactured substances such as leather, cloth, etc. In this sense it is not clearly distinguished from *mold.* In rainy weather, mildew forms very readily on soiled clothing, shoes, book-bindings, etc. Tagalog "ámag;" Visayan "tagiptíp;" Ilocano "bo-ót;" Cebuano "agópop."

Mint. Any plant belonging to the mint family. Most of these plants are aromatic and owe this property to certain essential oils. Leaves used for flavoring, condiments, etc. *Ocimum basilicum* L., a strongly scented herb with pink or purplish flowers, is one of the commonest forms in the Philippines. Filipino names: "bonác," "calóoy," "canéla," (cinnamon is also called "canéla"), "solási," and "sulási." "Hierba buena" is the true mint (mentha).

Misua. A Filipino-Chinese edible paste having the appearance of fine cotton twine.

Mongos (*Phaseolus radiatus* L.). Tagalog and Visayan name for the green gram—a kind of bean. The beans are borne in long slender cylindrical legumes on a low bushy herbaceous cultivated plant and look like small peas. Extensively used for food, both as a base and as an ingredient. Also called "balátong" in Batangas and the Ilocos provinces.

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Nanca (*Artocarpus integrifolia* L. f.). A tree with small ovate entire leaves, fruit borne on the trunk and sides of the larger branches. The "jak-fruit" (erroneously spelled "jack-fruit"). Also called "lánca," "láñgca," and "náñgca." Related to the "camánsi" or bread-fruit (*Artocarpus camansi* Blanco).

Nipa. (*Nipa fructicans* L. and Wurmb.). A species of palm which grows along estuaries and in salt marshes. Leaves extensively used for thatching houses. Juice from flower spathe called "tuba".

Okra (*Abelmoschus esculentus*). A tall annual of African origin, widely cultivated for its mucilaginous green pods used as the basis for soups, stews, etc., or made into pickle. Gumbo.

Olla. Spanish-Filipino name for a soft-burnt unglazed earthenware cooking or water pot.

Pacó (*Athyrium esculentum* Copel.). Tagalog name for a polypodiaceous fern (spleen-wort), the young stems and leaves of which are much used for food by the Filipinos.

Pan de caña. Hot buns or hot bread cut into slices and rebaked. Differs from toast bread in that it is baked within an oven instead of over a flame. Compare the German "zweibach."

Pansit. A Filipino dish similar to the Chinese "chop suey."

Pansitería. A Filipino hash-house or delicatessen.

Papaya (*Carica papaya* L.). Spanish-Filipino name for the true pawpaw. Also called "capáyas."

Patola (*Luffa cylindrica* Roem. and other species). Tagalog and Visayan name for the "vegetable sponge." Cultivated for its edible fruits, which are sometimes called "dishcloth gourds" or "towel gourds" because of the tough fibrous network encasing the seeds. Ilocano name, "kabitíti;" Pangasinan, "tabóngas;" Pampangan, "tabóngao."

Pechay (*Brassica oleracea*). A plant commonly cultivated by the Chinese, and during the past few years by the Filipinos, as a pot herb.

Pillo (pronounced "peel'-yo"). Spanish name applied to boys or men of wild or dissolute habits.

Pinokpok. A kind of cloth similar to sinamay (which see) but which is beaten to make it soft and pliable.

Piña (*Ananassa sativa* Lindl.). Strictly, the Spanish-Filipino name for the pineapple. Cultivated in the Philippines for its fiber and edible fruit; elsewhere principally for the fruit. The name "piña" is also commonly applied to the cloth manufactured from the fiber of the pineapple leaf.

Pómelo. English name, perhaps of East Indian origin, for the "lukban" (which see).

Rosquillo. Spanish-Filipino name for a round native water-cracker.

Sabá (*Musa sapientum* L.). Tagalog and Visayan name for a variety of cooking banana which yields a fiber capable of being woven into textiles. Called "díppig" in Ilocano.

Sampaguita (*Jasminum sambac* Ait.). The Philippine jasmine. Commonly cultivated for ornament. The flowers have a strong sweet odor.

Shrimp. A small marine crustacean having three pairs of small pinching claws and no large ones. The so-called shrimp of the Philippines is really a prawn. Called "camarón" in Spanish; "pasáyan" in Visayan and Ilocano; and "hípon" in Tagalog.

Sinamay. Name given to a Philippine cloth woven from the fiber of abaca or other members of the banana family, or from the coarser fibers of the pineapple leaf. See text for discussion.

Sincamas (*Pachyrhyzus erosus* Urb.). Tagalog name for a climbing herbaceous plant, which grows from an edible tuber resembling the turnip both in shape and flavor. Cultivated. Also called "híncamas" and "tícamas."

Sirena. Approximately the Spanish equivalent of "mermaid." Compare the English word "siren."

Sitao (*Vigna sinensis* Endl.). Manila name for a plant similar to, if not identical with, the "cow-pea" of the United States. Cultivated herbaceous vine. Called "balátong," "hamtac," and "lastón" in Visayan; "kíbal" in Batangas; "útong" in Ilocano; and "páyap" in Cavite and Tayabas.

Sutangjon. Filipino or Chinese spaghetti.

Tamarind (*Tamarindus indica* Linn.). English name for the Spanish-Filipino "tamarindo." Tree with fine compound leaves. Seeds borne in a pod and embedded in an acid edible flesh. Also called "sampálok," "sambág," "salomágui," "camalágin," and and many other similar names.

Tinaja. A large glazed hard-burnt earthenware jar, usually with the top narrowed down to a small opening, used for storing water, bagóong, and other substances.

Ubi (*Dioscorea alata* L. and other species). Native name for a climbing plant with a fleshy rootstock, used for food in much the same manner as the camote (which see), which it resembles to some extent, although not botanically related. The ubi root not uncommonly attains to a weight of as much as four kilos. The ubi is a yam.

Vara. Spanish-Filipino for "yard." Equivalent to 83.6 centimeters or 32.9 inches.

Wak-wak. Visayan name for an imaginary creature similar to the "asuang" (which see) of the Tagalogs.

APPENDIX C

INDEX TO COOKING RECIPES[1] AND OTHER SIMILAR SPECIFIC DIRECTIONS AND DISCUSSIONS

(NOTE.—This index does not contain references to the rice recipes appearing in Appendix A)

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